DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH: AN INDIVIDUAL DIFFERENCES-BASED CONCEPTUALIZATION OF WORK CONTEXTS

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Differential Framing of Situational Strength:
An Individual Differences-Based Conceptualization of Work Contexts

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SUMMARY

"Strong situations" have been shown to decrease behavioral variability, thereby attenuating the criterion-related validity of non-ability individual differences for criteria such as job performance (Barrick & Mount, 1993; Meyer, Dalal, & Bonaccio, 2009). However, it has been suggested that individuals, based on individual differences in implicit motives, may impute discrepant psychological meaning to social stimuli like situational strength—a process sometimes known as differential framing (James & McIntyre, 1996). If different psychological interpretations are attached to strong situation stimuli (e.g., Meyer, Dalal, & Hermida, 2010), an interesting behavioral "double-edged sword" is possible. On the one hand, behaviors pertinent to "primary criteria" (i.e., criteria for which external situational influences and pressures lead to targeted behavioral homogeneity) may occur among those who would not normally engage in them. But, at the same time, behaviors pertinent to "secondary criteria" (i.e., unintended, unforeseen, and potentially reactionary behaviors and/or attitudes) might also increase for *some* individuals (i.e., those with certain implicit motive characteristics).

In other words, high situational strength may simultaneously constrain behavioral variability in primary criteria while serving as a stimulus for differential framing, thereby expanding variability on secondary criteria. The purpose of the present dissertation was twofold: 1) to explore the degree to which situational strength is differentially framed, and 2) to ascertain how the differential framing of situational strength may lead to unintended secondary outcomes.

Study 1 findings indicate that, to a partial extent, situational strength is differentially framed by individuals with different implicit motives. Study 2 findings are largely consistent with extant situational strength theory, though partially inconsistent with study predictions.

CHAPTER 1

INTRODUCTION

The field of Industrial/Organizational (I/O) psychology has seen a growing interest in the conceptualization and assessment of work situations (e.g., Cooper & Withey, 2009; Johns, 2006; Kanfer, Chen, & Pritchard, 2008; Meyer, Dalal, & Hermida, 2010). Some have argued that one of the most important situational variables to consider when predicting human behavior is situational strength (Meyer & Dalal, 2009; Snyder & Ickes, 1985). Situational strength has been shown to restrict the manifestation of non-ability individual differences (Mischel, 1973; Weiss & Adler, 1984), thereby moderating relevant personality-outcome relationships (Barrick & Mount, 1993; Meyer, Dalal, & Bonaccio, 2009). Although the distinction between "strong" and "weak" situations has been useful, a complete appreciation of the influence of situations requires the acknowledgment that "contextual factors cannot be disembedded from the psychological meaning given to them by the individual" (Deci & Ryan, 1987, p. 1033; see also: Endler & Magnusson, 1976; James & Jones, 1974; Schneider, 1975).

This perspective is especially relevant, given that previous research suggests that there are individual differences in the cognitive construction of social stimuli that are associated with individual differences in personality (James & Mazerolle, 2002). This phenomenon is known as *differential framing*, defined here as the notion that individuals with different implicit motives may impute qualitatively discrepant psychological meaning to the same social stimuli (James & McIntyre, 1996), thereby yielding divergent behavioral and/or affective reactions. Thus, although a preponderance of theory and research indicates that situational strength is primarily associated with a decrease in personality-driven behavioral variability, differential framing suggests that secondary (and potentially unwanted) outcomes of situational strength are also possible. That is,

even situations that homogenize behavior in a targeted manner (i.e., strong situations) have the potential to yield very different *psychological interpretations* and, therefore, behaviors and attitudes. Further, according to the central tenets of differential framing, these interpretations and secondary outcomes should be able to be predicted on an *a priori* basis by understanding one's individual differences profile.

As such, the current manuscript begins by reviewing situational strength's historical context, salient research, and recent conceptualizations. Next, two approaches to understanding the influence of situational variables are compared and contrasted (i.e., a "stimulus-response approach" and a "social-cognitive approach"). Despite the historical dominance of the univariate, stimulus-response approach, it is posited that a social-cognitive approach is better equipped to account for the ways in which situational variables are differentially construed by different types of individuals. Relevant theory, evidence, and implications regarding this assertion are discussed, and a methodology for testing its effects vis-à-vis situational strength is presented.

Situational Strength

Situational strength is a contextual variable hypothesized to restrict the manifestation of non-ability individual differences (Schneider & Hough, 1995; Snyder & Ickes, 1985; Weiss & Adler, 1984), thereby attenuating relevant trait-outcome relationships. This construct is specifically defined as:

> implicit or explicit cues provided by external entities regarding the desirability of potential behaviors. Situational strength is posited to result in psychological pressure on the individual to engage in and/or refrain from particular courses of action; this pressure, in turn, is posited to reduce relevant behavioral variance and attenuate subsequent trait-behavior relationships (Meyer et al., 2010, p. 122).

Given its place in the history of interactionist thought (e.g., Forehand & von Haller Gilmer, 1964; Hattrup & Jackson, 1996; March & Simon, 1958; Weiss & Adler, 1984) and its standing as an important contextual variable in the organizational sciences (e.g., Kanfer, Chen, & Pritchard, 2008; Hough & Oswald, 2008; Murphy & Dzieweczynski, 2005), the next several paragraphs provide a brief overview of its historical and conceptual underpinnings.

Theory and research on situational strength stems from a long debate over the relative influence of person and situation factors on human behavior. Popularly known as "the person-situation debate," this is essentially a non-issue now, as a majority of researchers (cf. Chatman, 1989; Magnusson & Endler, 1977; Meyer et al., 2009; Schneider, 1983; Terborg, 1981) subscribe to an interactionist position (i.e., a philosophy wherein *both* person and situation factors are viewed as important determinants of behavior). For instance, in some situations (e.g., a red traffic light, working under a micro-managing boss, a formal ceremony), the external cues for behavior are so clear/overwhelming that they attenuate the predictive impact of person-factors. On the other hand, in other situations (e.g., a yellow traffic light, working from home, grabbing beers with friends), the contextual demands are much less overt, thereby making personality a more important predictor of subsequent behavior.

Situational strength becomes relevant to this discussion because, where useful taxonomies for person factors have been created (e.g., cognitive ability: Cattell, 1971; Guilford, 1956; McGrew, 2005; Thurstone & Thurstone, 1941; personality: Digman, 1990), less work has been dedicated to uncovering and classifying salient situational dimensions (Funder, 2006; Johns, 2006). Despite this gap in the research literature, it has been posed that the "strength" of the situation represents a useful dimension from which the initial classification of situational

characteristics may begin (Hattrup & Jackson, 1996; Hough & Oswald, 2008; Snyder & Ickes, 1985).

Seminal Research

Though theory and research on situational strength is most often associated with the work of Walter Mischel (1968, 1973, 1977), conceptually-related work in this area actually began substantially earlier (e.g., Forehand & von Haller Gilmer, 1964; March & Simon, 1958; Rogers, 1954; Weber, 1958, 1922/1978). Nevertheless, Mischel is most often credited with recognizing the "strength" of a situation as an important variable to consider when studying personality. For example, Mischel (1977) wrote that:

> Psychological "situations" (stimuli, treatment) are powerful to the degree that they lead everyone to construe the particular events the same way, induce *uniform* expectancies regarding the most appropriate response pattern, provide adequate incentives for the performance of that response pattern and require skills that everyone has to the same extent...Conversely, situations are weak to the degree that they are not uniformly encoded, do not generate uniform expectancies concerning the desired behavior, do not offer sufficient incentives for its performance, or fail to provide learning conditions required for successful genesis of the behavior (p. 347).

An example provided by this author of a strong situation is a red traffic light. That is, most drivers likely perceive this event as a signal to "STOP!" have the same expectancies about the best course of action (e.g., begin braking), adequate incentives (e.g., avoid a ticket or car accident), and similar abilities to stop. On the other hand, Mischel (1977) used the Thematic Apperception Test (Murray, 1938) as an example of a weak situation. In this psychological testing situation, subjects are shown pictures that have intentionally ambiguous meaning and are

asked to create a story about what is happening in the picture. As Mischel (1977) remarked, "clearly the answers depend more on the storytellers than on the card" (p. 347).

More recently, and more specific to I/O psychology, Barrick and Mount (1993) found that in jobs with higher levels of autonomy (i.e., lower situational strength), personality was a better predictor of job performance than in those with lower autonomy (i.e., higher situational strength). Beaty, Cleveland, and Murphy (2001) investigated the moderating effect of situational strength in both the laboratory and the field. In both settings, these researchers found that the relationship between personality and self-reported intention to engage in positive contextual performance behaviors was moderated by situational strength. Meyer et al. (2009) found similar results when they meta-analytically examined occupation-level situational strength as a moderator of the conscientiousness-job performance relationship. These authors operationalized situational strength through occupation-level "constraints" and "consequences."

Recent Conceptualizations

Recent work by Meyer and colleagues (Meyer, et al., 2009; Meyer, et al., 2010; Meyer, et al., in press) has led to important conceptual advances in the construct development of situational strength. Most relevant to the current efforts, Meyer et al. (2010) presented a facet structure to further define and elucidate situational strength's construct space. Their framework, called the "4 C's of situational strength" includes the following facets: clarity, consistency, constraints, and consequences. A summary of definitions is provided in Appendix A.

Clarity is defined as "the extent to which cues regarding work-related responsibilities or requirements are available and easy to understand" (Meyer et al. 2010, p. 125). Higher clarity is theoretically associated with increased behavioral homogeneity because expected behaviors for employees are clearly communicated. Meyer et al. (2010) discussed the work of Bowles,

Babcock, and McGinn (2005) on "structural ambiguity," or the "degree of uncertainty in parties' understanding of the economic structure" (p. 952) of a negotiation. In situational strength terms, the higher the situational ambiguity (i.e., the lower the clarity) the weaker the situation. Bowles et al. (2005) found results consistent with overall situational strength theory, in that situational ambiguity moderated gender effects in simulated negotiations.

The second facet proposed by Meyer et al. (2010) is consistency, which is best described as "the extent to which cues regarding work-related responsibilities or requirements are compatible with each other" (Meyer et al., 2010, p. 126). Higher consistency is theoretically associated with increased behavioral homogeneity because various sources of information provide consistent messages about appropriate course(s) of action in the workplace. After their comprehensive review of diverse research literatures, these researchers cited Bacharach and Bamberger (2007) as a noteworthy empirical example of the consistency facet of situational strength. This particular operationalization centers on "supervisory support climate." This line of research, consistent with situational strength theory, demonstrated that when firefighters exposed to the events of September 11th received *consistent* messages of support from multiple supervisors, behavioral variability decreased (i.e., psychological disturbance was lessened, and more healthy choices were made, like seeing a psychological counselor).

Meyer et al. (2010) defined a third facet of situational strength, constraints, as "the extent to which an individual's freedom of decision and action is limited by forces outside his or her control" (p. 126). Higher levels of constraints are theoretically associated with increased behavioral homogeneity because situational influences constrain the employee from acting in accordance with individual difference-based tendencies. As an example, researchers have noted that economic conditions (e.g., a recession, high unemployment) may reduce variability in

turnover due to a lack of legitimate alternatives (Gerhart, 1990; Mobley, Griffeth, Hand, & Meglino, 1979). Previous research also suggests that the relationship between job satisfaction and voluntary turnover is weaker during a recession, again presumably reflecting the lack of opportunity to move elsewhere (Carsten & Spector, 1987; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Trevor, 2001). Put in situational strength terms, the lack of other job opportunities (and the need to keep the job one has) may *constrain* one's natural tendency to voluntarily move from one job to another. Thus, the strong situational constraints imposed by the recession have the potential to render individual differences in personality less predictive of actual behavior in the workplace (Cappelli & Sherer, 1991).

Lastly, the consequences facet of situational strength is defined as "the extent to which decisions or actions have important positive or negative implications for any relevant person or entity" (Meyer et al., 2010, p. 127). Higher consequences are theoretically associated with increased behavioral homogeneity because the potential for positive and/or negative outcomes motivates and/or dissuades individuals from acting in accordance with their individual difference-based behavioral proclivities. In a meta-analytic investigation, Meyer et al. (2009) examined this particular facet of situational strength and found that in occupations where job-level consequences were high (i.e., a nuclear plant operator), the relationship between conscientiousness and job performance was attenuated. These authors reasoned that the potential for serious adverse outcomes leads to conscientious behaviors among employees, regardless of their levels of trait conscientiousness.

In sum, all of the four facets are thought to represent a unique and important portion of situational strength's construct space. With that said, "each operationalization is posited to operate through a relatively unique set of psychological mechanisms" (Meyer et al., 2010, p.

127). To this point, a primary purpose of this dissertation is to investigate the degree to which these four facets are differentially framed.

The Influence of Situations

Currently, much of the situational strength literature is characterized by a "stimulus-response" approach to situational strength. That is, situational strength is often examined as though it affects individuals in essentially the same manner (i.e., behavioral homogeneity on a primary criterion). In this approach, resultant data are aggregated across individuals, and thus say little about how or why any one individual (or group of similar individuals) attaches psychological meaning to various operationalizations of situational strength (e.g., Meyer et al., 2010). This is a particularly vexing issue for situational strength research because it is unlikely that humans will only respond in one universal way to strong situations. Thus, it is posited here that a "social-cognitive" approach to understanding situational strength's multiple behavioral influences represents a fruitful next step in the progression of this literature, as various types and/or levels of situational strength may have different *psychological meaning* for certain types of individuals, which likely has implications for unanticipated or secondary behaviors (e.g., Meyer et al., 2010).

A "Social-Cognitive" Approach to Situations

The social-cognitive approach provides an important dimension to extant situational strength research because a number of researchers have argued that the interpretation of the situation, rather than the situation itself, is often a more important determinant of behaviors and attitudes (Bowers, 1973; Deci & Ryan, 1987; Endler, 1981; Endler & Magnusson, 1976; Forgas, 1982; Geertz, 1973; Hattrup & Jackson, 1996; Hettema, 1979; James, 1982; Kelly, 1955; Lewin, 1951; Magnusson, 1981; Mischel, 1981; Murray, 1938; Schneider, 1975; Shweder & Sullivan,

1990). Returning to the Barrick and Mount (1993) job autonomy investigation, social-cognitive theorizing (e.g., James, 1998) suggests, but has not directly tested, that certain individuals (i.e., those with a strong implicit motive to achieve) may be pre-disposed to frame "a lack of autonomy" as "restrictive," whereas other individuals (i.e., those with a strong implicit motive to avoid failure) may frame "a lack of autonomy" as "safe."

Thus, the social-cognitive view of situations extends current thinking by proposing that discrepant perceptions may have implications beyond *primary* criteria such as job performance. That is, there may be *secondary* outcomes for individuals who frame "a lack of autonomy" as "restrictive" that would likely be of interest to researchers and practitioners. For example, these individuals may be less satisfied at work, and thus more likely to turnover in pursuit of a job they frame as less "unrestrictive." Because of their role in the potential differential framing of situational strength, a discussion of implicit motives, as well as potential ways in which situational strength could be discrepantly construed, is outlined in the following sections.

The Role of Implicit Motives

Implicit motives, as defined by James and Rentsch (2004, p. 224), are comprised of two key characteristics:

> (a) components of cognitive structure and cognitive process that determine individuals' perceptual, emotional, and behavioral adjustments to environments (see Allport, 1937; James & Mazerolle, 2002) that (b) are not accessible to introspection by the individual (cf. Greenwald & Banaji, 1995; Kihlstrom, 1999; Nisbett & Wilson, 1977; Winter, John, Stewart, Klohnen, & Duncan, 1998).

Because motives have the potential to "strongly influence the direction, intensity, and persistence of the characteristic behavioral adjustments that we commonly refer to as traits," they have been

described as the "core explanatory mechanisms of personality" (James & Rentsch, 2004, p. 223; see also Buss & Cantor, 1989; Emmons, 1989; James & Mazerolle, 2002; Maddi, 1989; McClelland, 1985; Mischel & Shoda, 1998). The role that implicit motives play in the biasing of social perception and reasoning is also important (e.g., James & Mazerolle, 2002), and is further detailed in the following.

Differential Framing

In the organizational sciences, the notion that implicit motives produce discrepant subjective meanings for the same social stimuli is called differential framing (James & McIntyre, 1996; James & Mazerolle, 2002).This is because motives have the potential to:

> guide us to interpret an ambiguous stimulus in a certain manner; direct our focus of attention on certain aspects of the environment, ignoring others; embellish input information to make it more easily retrieved; offer us a warning of potential threat; [and] enter into our choice of responses in a difficult decision process (Rogers, 1981, p. 194).

Thus, if one possesses a strong implicit motive to avoid failure, this individual is likely to demonstrate patterns of cognition (e.g., "accepting this promotion will put me in a position to have my weaknesses exposed") and behavioral patterns (e.g., "I'll play it safe if I have to take this promotion, so I don't make mistakes") that are consistent with said motive. If, on the other hand, one possesses a strong motive to achieve, then this individual is likely to frame the prospect of a job promotion in a different manner (e.g., "accepting this promotion is an opportunity to show what I've got") and act in accordance with both the framing and implicit motive (e.g., "when I'm in charge I'll hit the ground running; nothing ventured, nothing gained").

Further, such patterns of cognition reinforce the motive such that it appears *rational* or *justified* from the standpoint of the individual (Crick & Dodge, 1994; Grant & Dweck, 1999;

Isen, 1984; James & McIntyre, 1996; Rusting, 1998). Cervone and Shoda (1999) noted that "people create explanations for their experiences and try to tie them together into a coherent theory that encompasses many aspects of their lives" (p. 22). For instance, an individual with a strong motive to aggress may view oneself as someone who is incessantly victimized by powerful others, and thus seeks justified revenge (James, 1998). Such implicit biases in reasoning reinforce this motive, as the individual frames his/her behavior as justified, socially-sanctioned (aggressive) behavior (James & Mazerolle, 2002).

The Role of Justification Mechanisms in Differential Framing

The work of James and colleagues (1998; James et al., 2004, 2005) has been essential in elucidating implicit mechanisms that may shape the reasoning that results in differential framing. Most important are justification mechanisms (JMs), or the implicit biases that "enhance the rational the appeal of motive-based behavior" (James & Mazerolle, 2002, p. 207). JMs are inextricably tied to differential framing because with JMs, individuals have a mechanism through which they are able to frame stimuli in ways that protect and reinforce underlying motives (cf. Crick & Dodge, 1994; Isen, 1984; James & McIntyre, 1996; Rusting, 1998). Thus: "when these qualitatively different JMs are mapped onto perceptions of the same behaviors, people, environments, or events with the implicit purpose of justifying different behaviors, we have differential framing" (James & Mazerolle, 2002, p. 207).

The hostile attribution bias, or the proclivity for attributing hostile intent in others, is a JM that likely plays a prominent role in this process. For example, one whose reasoning is characterized by this implicit bias may frame a genuinely nice gesture as an action that has a hidden agenda, such as a ploy to obtain power. One whose reasoning is more prosocially-oriented and not shaped by this particular JM, on the other hand, would likely frame this action

in a qualitatively different way (e.g., "it is just a genuinely nice gesture"). Because James's (1998) JMs are posited here to serve as a basis for differential framing, full definitions of each can be found in Appendix B.

Supporting Evidence of Differential Framing

LeBreton (2002) directly tested differential framing by using an implicit motive-based measure, the Conditional Reasoning Test of Aggression (CRT-A), to predict performance on a "synonyms test," where each item had two logical choices: one reflecting an aggressive interpretation and one reflecting a prosocial interpretation. It was proposed that CRT-A scores would be positively associated with one's choice of aggressive alternatives, though evidence was mixed: across three samples the strongest correlation between these two measures was .22 ($p <$ .05), where in other samples, correlations were modest and non-significant. McMahon (2009) also directly tested this phenomenon, but with regard to the achievement motivation/fear of failure constructs. Again, results were mixed: the strongest correlation was .23 ($p < .01$), whereas other relationships were not significantly different from zero.

Though not conducted specifically to investigate differential framing per se, other data exist that provide indirect evidence for this phenomenon. For instance, early researchers (Goodstein, 1954; Haney, 1973; Phares, 1961) found that individuals high in negative affectivity (NA) are more likely to interpret ambiguous stimuli negatively. High NA individuals are also more likely to frame themselves as the cause of failures, and to draw on these experiences to make generalizations about themselves (Peterson & Seligman, 1984). Connor and Abraham (2001) found that participants higher in conscientiousness framed goals and goal setting in more positive terms than their low conscientiousness counterparts. Buss (1996) presented evidence of differential framing in evaluating the most effective strategy for romantic partner retention.

Specifically, he found that highly conscientious individuals view making one's mate jealous as the most effective strategy, highly extraverted individuals view showing off for one's mate as the most effective strategy, and highly agreeable individuals view showing an abundance of affection as the most effective strategy.

Further, similar findings have been found for a number of other constructs for myriad social stimuli, including aggression's influence on attributing hostile intent in social situations (Crick & Dodge, 1994), prosocial and pro-self personality orientations' influence on fairness judgments (Anderson & Patterson, 2008), self-efficacy's influence on perceptions of difficult tasks and demands (Bandura, 1999; Caprara & Cervone, 2000), achievement motivation/fear of failure's influence on performance interpretations (Dweck & Leggett, 1988), and rejection sensitivity's influence on rejection in social situations (Mischel & Shoda, 1998). Thus, in order to add a sense of theoretical coherence to this diverse literature, situational strength is explored here as a key social stimulus for differential framing.

The Differential Framing of Situational Strength

As previously noted, some researchers have downplayed the importance objective or surface-level contextual characteristics on affect and behavior, instead emphasizing the psychological meaning that an individual *attaches* to situational features like situational strength (Deci & Ryan, 1987; Endler & Magnusson, 1976; Forgas & Van Heck, 1992; Hattrup & Jackson, 1996; James & Jones, 1974; Lewin, 1936; Mischel, 1973; Rogers, 1951; Schneider, 1975). Further, differential framing theory suggests that there may be individual differences in the cognitive construction of operationalizations of situational strength. Thus, although a preponderance of research indicates that situational strength is associated with a decrease in behavioral variability (presumably resulting in an intended primary outcome), differential

framing suggests that unintended (and potentially unwanted) secondary outcomes of situational strength are also possible among employees with particular motive profiles. The focal implicit motive for this dissertation is discussed below, followed by examples of the ways in which situational strength may be differentially framed.

The Implicit Motive to Aggress

The implicit motive to aggress is defined as a "desire to overcome opposition forcefully, to fight, to revenge an injury, to attack another with intent to injure or kill, and to oppose forcefully or punish another (Murray, 1938)" (James et al., 2005, p. 72). Those with a strong motive to aggress (AGs) are "overly sensitive to social cues conveying hostile or malevolent intent and have difficulties in evaluating the value of alternative or positively valued information" (Zelli & Dodge, 1999, p. 102). Thus, it is generally proposed that those with a high implicit motive to aggress, in comparison to those with no or little motive to aggress, are more likely to evaluate situational strength through a lens of hostility, dominance versus submissiveness, oppression, injustice, and so forth (James et al., 2004). This is not to say that the motive to aggress is the *only* individual differences variable relevant to the differential framing of situational strength, but *ceteris paribus*, empirical evidence indicates that AGs are likely to interpret the presence of situational strength in a hostile manner. As such, the following section goes into greater detail by exploring the ways in which the JMs of aggression (James et al., 2005) pertain to the four facets of situational strength (Meyer et al., 2010).

Justification Mechanisms & the Four Facets

In this section, propositions are made regarding how individuals whose reasoning is dominated by specific JMs of aggression (James et al., 2005) may frame strong situations. The focus is placed on stimuli high in situational strength to illustrate that situations that reduce

behavioral variability in a targeted fashion (i.e., increased job performance) have the potential to generate very different psychological interpretations (i.e., differential framing). This is important because these discrepant psychological reactions may provide the basis for unwanted or unintended secondary behaviors and attitudes (e.g., decreased job satisfaction, retributive behaviors like stealing and sabotage), a point that is further explored in the next section of this paper.

Previous research indicates that aggressive individuals are overly attentive to or perceptive of situational cues that "merit" an aggressive response (Crick & Dodge, 1994; Zelli & Dodge, 1999). The current discussion goes into further detail, however, by integrating research on JMs from James and colleagues (James, 1998, James et al., 2004, 2005) with recent developments of the facet structure of situational strength made by Meyer and colleagues (Meyer et al., 2009, 2010). In the following, relevant definitional information for the most salient JMs of aggression will be provided, as well as a discussion regarding how situational strength may serve as a useful framework for conceptualizing one set of environmental stimuli that may be differentially framed.

Perhaps the most popular JM in the research literature is the hostile attribution bias, defined as "the tendency to see malevolent intent in actions of others" (James et al., 2004, p. 275). Given this definition, it is proposed that individuals whose reasoning is dominated by this bias will generally frame the use or presence of situational strength as a stimulus that is intended to subtly undermine or harm the individual through the guise of "legitimate" organizational practices. It is proposed that this particular JM is relevant to the differential framing of all four facets of situational strength. For instance, the clarity and consistency facets both have the potential to be framed as emanating from a lack of supervisory/organizational trust. The

consequences facet may be framed as attempts to bully or frighten employees into obedience, while the constraints facet may be viewed as a hostile attempt to undermine one's performance for nefarious reasons (e.g., to prevent the subordinate from outshining the supervisor).

Another potentially relevant JM is the potency bias, which leads individuals to interpret social stimuli through a prism of dominance versus submissiveness (James et al. 2005, p. 74). Thus, individuals driven by this reasoning bias are likely to view general situational strength as a means through which one's supervisor or the organization at large may attempt to assert dominance and engender submissiveness. Much like the hostile attribution bias discussed previously, this particular JM may cut across all four facets of situational strength, in that submitting to any or all of the four is a weak and cowardly response to an attempt at being dominated.

The victimization by powerful others bias is defined as the propensity to frame one's "self as a victim and to see self as being exploited and taken advantage of by the powerful" (James et al., 2004, p. 275). Individuals with this particular bias may frame the constraints facet, for example, as an instance in which one's supervisor is wielding his/her power to oppress and undermine the individual's productivity and work reputation. It is also possible that the consistency facet is framed as one in which organizational forces (i.e., supervisors, management team, organizational culture, etc.) collectively conspire to "pigeon-hole me into doing a select list of tasks." That is, aggressive individuals perceive social cues pertaining to externally endorsed behaviors as a form of manipulation by powerful others (e.g., James, 1998), which is consistent with viewing this facet through a conspiratorial lens. The consequences facet may also be viewed as one in which organizational forces are "trying to scare me into doing what *they* want."

One whose social reasoning is driven by a retribution bias will frame the gaining of revenge as more important than forgiveness or maintaining a relationship (James et al., 2005, p. 74). Thus, if an "individual's freedom of decision and action is limited by forces outside his or her control" (i.e., constraints; Meyer et al., 2010, p. 126), an individual whose reasoning is driven by a retribution bias may seek revenge for what are perceived to be disrespectful attempts to control one's work responsibilities (e.g., Brehm, 1966). For example, if a customer service representative has to complete 100 calls before he or she is allowed to leave for the day or else risk termination (i.e., strong consequences), it is likely that the majority of employees will complete this requirement. However, an individual with a proclivity to view social stimuli through the prism of a retribution bias may also react by finding ways to implicitly justify retaliating against one's supervisor or organization for "unjustified abuses of power," for example.

The derogation of target bias refers to a proclivity whereby individuals frame social stimuli that are the target of "justified" aggression as evil or untrustworthy (James et al., 2005, p. 74). Individuals whose reasoning is driven by this particular bias should be more likely to view the use or presence of situational strength as underhanded, corrupt, unethical, or untrustworthy, and thus deserving of an aggressive reaction. Through this social perception bias, individuals may frame the consequences facet of situational strength as akin to intimidation tactics. Manifestations of the constraints facet of situational strength may be viewed as underhanded and/or unethical ways in which the organization prevents employees from performing their jobs in their own way and stunting their professional development.

The preceding section outlined the ways in which operationalizations of situational strength may be differentially framed. It follows that if AGs frame situational strength in a

hostile manner, they would react in accordance with this framing, thus opening the possibility of secondary outcomes of situational strength. This prediction is further developed in the following section.

Secondary Outcomes of Situational Strength

Meyer et al. (2010) presented a potential paradox for some workers regarding issues of occupational safety and psychological well-being. That is, let us say that management at a paper mill standardizes procedures such that tasks are to be carried out in a very detailed, methodical, step-by-step process, in order minimize costly and/or potentially harmful mistakes. This would be an example of increasing situational strength and is likely to restrict criterion variance and attenuate the impact of relevant individual differences on predictions of performance. What Meyer et al. (2010) point out, however, is that previous research suggests that some employees may view (or, differentially frame) such procedures as overly constraining and burdensome, which may decrease psychological health, even though they are designed to increase workplace safety and productivity (e.g., deCharms, 1968; Ryan & Deci, 2000; Shoda et al., 1994). They note:

> Within the context of situational strength, some employees may view highly constraining environments as stifling and frustrating, whereas others may find the regimented and predictable nature of constraining environments to be comforting and relaxing (Meyer et al., 2010, p. 135).

As such, high situational strength may be a double-edged sword. Thus, a primary goal of the present dissertation is to better understand how one's implicit motives drive interpretations of and reactions to situational strength.

The Current Investigation

As conveyed throughout this proposal, the overarching purpose of this dissertation is to explore individual difference-based differential reactions to high situational strength. It was previously outlined how the implicit motive to aggress may lead to differential framing of situational strength. It is further proposed that individuals will largely act in accordance with their respective cognitive interpretations (i.e., differential framing). That is, if an individual frames very clear expectations (i.e., high clarity) as "domineering" instead of "instructive" (for example), it follows that behaviors and attitudes consistent with this hostile framing should follow. Thus, situational strength may simultaneously decrease behavioral variability on primary outcome(s) (i.e., performance; Meyer et al., 2009), while increasing observed variability on secondary outcome(s). A method for testing the potential for differential framing of situational strength, as well as potential secondary outcomes, is outlined below.

CHAPTER 2

STUDY 1

Hypothesis Development

The intent of the first study was to explore implicit motive-based *interpretations* of situational strength. As described previously, James (1998) outlined how individuals with a strong motive to aggress (AGs) view social stimuli (particularly work-related social stimuli) through a prism of hostility, dominance, vengeance, and so forth. Researchers from other domains of psychological research (e.g., Dill, Anderson, & Deuser, 1997; Dodge, 1986; Dodge & Frame, 1982; Gouze, 1987; Matthews & Norris, 2002; Wilkowski, Robinson, Gordon, & Troop-Gordon, 2007) have also demonstrated that aggressive characteristics predispose individuals to perceive hostile intent, feel victimized, and so forth, in order to support the motive to aggress. Conversely, individuals with a weak or non-existent motive to aggress, hereafter referred to as prosocials (PSs), do not interpret social stimuli through this lens. Thus, consistent with the body of research outlined in Chapter 1, the first hypothesis examines the extent to which one's implicit motive to aggress is associated with hostile interpretations (i.e., differential framing) of situational strength:

> *Hypothesis*$_1$: The implicit motive to aggress will be positively correlated with hostile interpretations of situational strength.

Method

Participants

A total of three hundred fifty one (351) students participated in this study for course extra credit. Data were collected via paper-and-pencil surveys in experimental sessions. Approximately 43% of the students were female. The average reported age was 19.73 years.

Approximately 5% of the sample reported primary ethnicity as African American, 30% Asian, 6% Hispanic, 54% Caucasian, and 3% as not indicated.

Materials

Predictor Measures

Conditional Reasoning Test for Aggression (CRT-A)

The CRT-A is an implicit measure of aggression that assesses one's readiness to justify aggression. This assessment has 22 operational items that are constructed to look like inductive reasoning problems. That is, after reviewing a set of statements, respondents are to select one of four possible answers as the "most logical" response option. Each item contains a response indicative of an aggressive interpretation, a non-aggressive response, and two illogical distractor choices. James et al. (2004) reported internal consistency estimates of reliability of .76, and a .82 alternative forms estimate of reliability. Research using the CRT-A has found an average uncorrected validity of .44 against behavioral indicators of aggression (James et al., 2005).

Personality Research Form-E (PRF-E)

The PRF-E is a 352 true/false item, non-clinical, self-report personality inventory based Murray's needs model (Murray, 1938). The PRF-E has 20 subscales, with an additional two validity scales: Infrequency and Social Desirability. Other subscales include: Abasement, Achievement, Affiliation, Autonomy, Change, Cognitive Structure, Endurance, Exhibition, Harm Avoidance, Impulsivity, Nurturance, Order, Play, Sentience, Social Recognition, Succorance, Understanding, Infrequency, and Desirability. Each one of the 22 scales has 16 items in a true-false answer format. Skinner, Jackson, and Rampton (1976) found median internal consistency values of .92, and a median test-retest value after one week of .81. Validity estimates for peer behavior ratings were .52.

The PRF-E was utilized for exploratory purposes, as previous research suggests that conditional reasoning measures and self-reports of similar constructs are often correlated at a weak and statistically insignificant level (Bing et al., 2007a; Frost, Ko, & James, 2007; James et al., 2004; Wiita, Schnure, & James, 2010). Thus, participants completed the Aggression, Achievement, Affiliation, Endurance, Impulsivity, Infrequency, and Order scales from the Personality Research Form-E (PRF-E; Jackson, 1974). For experimental purposes, the focus was on the PRF-E Aggression scale. The Infrequency scale was used to detect participants who were carelessly responding, and to mask the intent of the research. The Achievement, Affiliation, Endurance, Impulsivity, and Order scales were included to mask the intent of Study 1.

Criterion Measure

Differential Framing of Situational Strength Scale (DFSSS)

An indirect measurement system is required because differential framing is an implicit cognition (Greenwald & Banaji, 1995; James & Mazerolle, 2002; James & McIntyre, 1996; James & Rentsch, 2004; LeBreton, 2002; McMahon, 2009). Thus, participants were given the impression that they were completing an "adjectives test" about the accuracy with which people describe work environments. Presenting this measure as a test of ability is consistent with previous research assessing both implicit motives (e.g., James, 1998) and differential framing (e.g., LeBreton, 2002; McMahon, 2009). However, the real goal was to assess the correlation of motive strength (i.e., the motive to aggress) with various adjectives that can be used to describe strong situations.

More specifically, participants read a brief description of a work environment adapted from the “four facets” of situational strength measure, designed by Meyer, Dalal, José, Hermida, Chen, Vega, Brooks, and Khare (in press). They were then asked to choose the "most descriptive

adjective" from a list of four possible options. For example, when provided the item stem "procedures prevent an employee from working in his/her own way," participants were asked to choose from the following adjectives (see Appendix C for a list of all items):

TEMPORARY DICTATORIAL BUREAUCRATIC DAZZLING

Based on previous theorizing (James, 1998; James et al., 2004, 2005), it was expected that PSs would frame this environment as "bureaucratic" (a relatively non-hostile interpretation), whereas AGs would frame it as "dictatorial" (a more hostile interpretation). Items were developed by the author to be consistent with the JMs outlined by James and colleagues (e.g., James, 1998; James et al., 2005). After the initial item design, the resultant bank of items was critiqued and adjusted by multiple members of two psychological research laboratories, as well as two faculty members familiar with both differential framing and situational strength.

The final measure was scored the same way as the CRT-A: +1 for each aggressive response. All other choices were scored as "0." Also consistent with the CRT-A, the amount of "distractor" responses chosen per participant was indexed to eliminate careless respondents from the final data sample. This measure yielded five scale scores; one for each of Meyer et al.'s (2010) four facets (i.e., the degree of aggressive interpretations of constraints, consequences, consistency, clarity, as well as a "positive consequences" scale to be consistent with Study 2). Distractor items were also included to prevent the true intent of the measure being revealed.

Distractor Tasks

Distractor tasks were included in an attempt to mask the overall intent of the research study. For this measure, participants answered questions such as "name every use for a brick that you can" or "list as many United States Presidents as possible."

Procedure

Participants were told that they were participating in a study designed to investigate relationships between personality, cognitive ability, and general knowledge. After providing consent, participants completed surveys that included basic demographic information (e.g., age, gender, ethnicity), the CRT-A, the PRF-E subscales, the distractor task, and the Differential Framing of Situational Strength scale. After completing these measures, participants were thanked and debriefed.

Results

A total of three hundred fifty one undergraduates participated in this study. However, the dataset was condensed because of evidence of careless or non-sensical responding on the part of participants. Specifically, twelve participants were eliminated due to having five or more illogical responses to the CRT-A. This is consistent with what is recommended in the manual for this assessment (e.g., James & McIntyre, 2000). The threshold of five out of twenty-two CRT-A items equates to approximately 23% of the operational CRT-A items. Given the precedent of a 23% illogical response threshold, this criterion was also applied to the DFSSS scale, a conceptually similar measure. That is, for the DFSSS measure, respondents who chose eight or more illogical options were removed from the data sample. This resulted in an additional eleven respondents having data removed. Further, another fifteen respondents were eliminated from the final analysis because their Infrequency scores on the PRF-E were four or above. This is consistent with what is recommended in the manual for this assessment (e.g., Jackson, 1974).

During the course of data collection, a number of participants informed the experimenters that they were aware that the CRT-A was a measure of aggression, not reasoning. This is problematic because concealing the intent of this and other implicit measures is essential to

assessment effectiveness (e.g., Greenwald & Banaji, 1995; James & Mazerolle, 2002; LeBreton et al., 2007). Further, these participants also informed the experimenters that they had learned about conditional reasoning from their previous coursework in psychology. Thus, an informal survey of instructors (i.e., for personality, industrial/organizational, and social psychology classes at the Georgia Institute of Technology) was conducted which suggested that conditional reasoning is almost universally discussed. Thus, information about participant coursework was collected via the demographics form, and any participants who had taken any of the three classes noted above were eliminated from the dataset because of their probable exposure to the conditional reasoning measurement methodology. This resulted in thirty four additional participants being removed from the final analysis.

Based on this refined sample, descriptive statistics for all study measures are provided in Table 1 on the following page. For a comprehensive correlation table for all study measures, refer to Appendices M and N, respectively.

Table 1. Descriptive Statistics for Study 1 Measures

Survey	*N* Items	Sample 1			Sample 2		
		Mean	*SD*	r_{xx}	*Mean*	*SD*	r_{xx}.
CRT-A	22	4.26	2.16	.722^	4.44	2.26	.705^
PRF-E Aggression	16	7.59	3.52	.759	7.57	3.53	.761
PRF-E Infrequency	16	1.33	0.57	N/A	1.30	0.58	N/A
DF Clarity	3	0.55	0.67	.145	0.49	0.64	.348
DF Consistency	3	0.21	0.50	.363	0.39	0.57	.221
DF Constraints	3	1.31	0.74	.071	1.38	0.77	.135
DF Consequences - Negative	3	1.06	0.78	.163	1.01	0.73	.162
DF Consequences - Positive	3	0.96	0.71	.076	0.94	0.74	.133
SAT Math	1	683.57	68.53	-	685.64	69.16	-
SR SAT Math	1	703.31	75.08	-	706.43	67.88	-
SAT Verbal	1	634.29	64.74	-	620.23	73.45	-
SR SAT Verbal	1	647.86	67.60	-	640.00	78.27	-
ACT Composite	1	27.00	4.04	-	29.88	3.64	-
SR ACT Composite	1	30.36	3.79	-	30.15	3.10	-
Grade Point Average	1	3.36	0.49	-	3.48	0.43	-
SR Grade Point Average	1	3.37	0.55	-	3.38	.51	-

Note. CRT-A = Conditional Reasoning Test of Aggression; PRF-E Aggression = Personality Research Form-E Aggression Subscale; PRF-E Infrequency = Personality Research Form-E Infrequency Subscale; DF Clarity = DFSSS Clarity Subscale; DF Consistency = DFSSS Consistency Subscale; DF Constraints = DFSSS Constraints Subscale; DF Consequences - Negative = DFSSS Negative Consequences Subscale; DF Consequences - Positive = DFSSS Positive Consequences Subscale; SR = Self-Reported; ^ = computation of reliability reported in James (1998) and LeBreton (2002), all other reliabilities are internal consistency estimates. Except for ACT scores, descriptive statistics are based on sample sizes ranging from 100 to 141. ACT scores sample sizes range from 16 (obtained scores) to 60 (self-reported scores in Group 2).

Hypothesis 1 proposed a statistically significant, positive correlation between CRT-A scores and the Differential Framing of Situational Strength Scale (DFSSS) subscale scores. In other words, it was proposed that hostile perceptions of external control (i.e., each of the four facets of situational strength) would be positively correlated with the motive to aggress. This hypothesis was tested by utilizing a double-cross validation design (e.g., Binning & Barrett, 1989; James, 1973; LeBreton, 2002). Specifically, the final sample of 284 was randomly split into two groups of equal size. In the first group (hereafter referred to as Group 1), correlations were computed between the primary predictor, the CRT-A, and all DFSSS subscale items. The best three items for each of the five DFSSS subscales were retained. Correlations were then computed between the CRT-A and the five three-item DFSSS subscales in Group 1 (i.e., the initial validity). Next, correlations were computed between the CRT-A and the same three-item subscales in Group 2 (i.e., the cross validity). This same process was repeated using Group 2 as the initial validation group, and then utilizing Group 1 as the cross validation group. Results are provided in Table 2 below. Cross validities are in bold, initial validities are non-bolded.

Table 2. Initial and Cross Validities for CRT-A and DFSSS Subscales

	Sample 1 Key	Sample 2 Key
Sample 1 DF Clarity	.254*	**.008**
Sample 2 DF Clarity	**.231***	.179*
Sample 1 DF Consistency	.246*	**-.006**
Sample 2 DF Consistency	**-.014**	.163
Sample 1 DF Constraints	.129	**.134**
Sample 2 DF Constraints	**-.018**	.144†
Sample 1 DF Consequences - Neg	.116	**.051**
Sample 2 DF Consequences - Neg	**.033**	.217*
Sample 1 DF Consequences - Pos	.082	**-.072**
Sample 2 DF Consequences - Pos	**.100**	.132

Note. A statistically significant positive correlation is interpreted as support for Hypothesis 1. * = $p < .05$; † = $p < .10$. Bolded text represents the cross validity. Non-bolded text represents the initial validity. Sample 1 sample sizes range from 139 to 140. Sample 2 sample sizes range from 133 to 136.

Initial validities provide tentative support for the hypothesis that individual differences in implicit aggression are positively correlated with hostile interpretations of situational strength. All initial validities are in the expected direction and half are statistically significant. However, cross validities provide less support for Hypothesis 1, as only one DFSSS subscale cross validity (i.e., clarity) was significantly different from zero.

Supplemental Analyses

Given the equivocality of results, supplemental analyses were conducted to further explore the nature of the obtained findings. First, the variability among CRT-A/DFSSS facet correlations was addressed. Initial findings suggest certain situational strength facets may be less amenable to the phenomenon of differential framing (i.e., results strongest for consistency and clarity, negative consequences and constraints weaker). It is also possible, however, that for facets such as constraints and negative consequences, a strong motive to aggress may not be a prerequisite for one to draw hostile conclusions about these particular work characteristics. That is, many people may draw hostile or negative conclusions about not having control over one's work (i.e., constraints) or being severely punished for mistakes (i.e., negative consequences), irrespective of their implicit motive to aggress. Conversely, to frame clear instructions about one's job task in a hostile manner, for example, one must theoretically have a strong motive to aggress. Thus, relationships with the motive to aggress may be attenuated due to the overall negative nature of the both the constraints and consequences constructs.

This was tested empirically. First, as is seen in Table 1, mean scores for constraints and negative consequences, in comparison to the clarity and consistency facet scores, are higher. Mean scale differences range from .51 to 1.10 higher ($p < .001$), which for a three item scale, is a relatively pronounced difference. These findings support the notion that perhaps constraints and negative consequences are generally viewed more negatively, and a strong implicit motive to aggress is not a prerequisite for viewing these facets in a hostile manner. This is also consistent with the pattern of findings in that stronger CRT-A/DFSSS correlations are observed for the clarity and consistency facets.

To further examine the differential framing of situational strength, a global situational strength score was computed. This was done by combining the five DFSSS facet scores into an overall score. This analysis was completed utilizing the double-cross validation mentioned above. Results are presented below in Table 3.

Table 3. Initial and Cross Validities for CRT-A and a Global Situational Strength Score

	Sample 1 Key	Sample 2 Key
Sample 1 Global Situational Strength	.297*	**.030**
Sample 2 Global Situational Strength	**.100**	.294*

Note. * = $p < .05$. Bolded text represents the cross validity. Non-bolded text represents the initial validity.

The pattern is consistent with findings for individual facets: initial validities support Hypothesis 1, whereas cross validities do not. In this case, however, initial validities are stronger than what was observed for facet-level DFSSS scores.

Though the focus for this dissertation is on measurement of the implicit motive to aggress, exploratory analyses were conducted with a self-report predictor of aggression: the PRF-E aggression subscale. Results are presented below.

Table 4. Correlations between the PRF-E Aggression Subscale and DFSSS Subscales

	Sample 1 PRF-E Agg	Sample 2 PRF-E Agg
DFSSS Clarity	-.060	.050
DFSSS Consistency	-.051	-.099
DFSSS Constraints	.134	.027
DFSSS Neg. Conseq.	.018	.004
DFSSS Pos. Conseq.	.047	.086

Affirmative results (i.e., statistically significant positive correlations) were not expected when correlating a self-report measure (e.g., the PRF-E Aggression subscale) with an implicit measure (e.g., the DFSSS subscales). This expectation was grounded in theory (e.g., James & Mazerolle, 2002) as well as previous empirical investigations (e.g., LeBreton, 2002, McMahon, 2009). Obtained results were consistent with these previous findings.

Study 1 Discussion

The hypothesis that the implicit motive to aggress is positively correlated with hostile or aggressive interpretations of situational strength was not unequivocally supported in this study. Though initial validities suggest partial support for this hypothesis, the comparatively more stringent analysis of cross validities provided only modest support.

A number of factors could have contributed to these equivocal findings. For instance, given the key "task" of the DFSSS is adjective selection, as well as the large number of non-native English speakers at the institution where this research was conducted, a plausible confound is that the presence of non-native English speakers. This assertion, however, appears less tenable given that mean self-reported SAT verbal scores for native English speakers (*M* =

653.88, *SD* = 69.71) and non-native English speakers (*M* = 640.40, *SD* = 96.28) were not significantly different from each other (*F* = .587, *p* = .445). Further, there were no statistically significant mean differences (*F* = .002, *p* = .968) between CRT-A scores for native English (*M* = 4.86, *SD* = 2.42) versus non-native English speakers (*M* = 4.84, *SD* = 2.21). The same is the case for the number of illogical CRT-A responses selected (*F* = .013, *p* = .909), when comparing native English speakers (*M* = .23, *SD* = .47) to non-native English speakers (*M* = .24, *SD* = .52). Differences between non-native English speakers and native English speakers for CRT-A/DFSSS correlations are not reported because sample sizes (e.g., *n* = 9) are not large enough to draw firm conclusions – this is because information about native English speaking was not collected from the beginning of the study.

Second, it was previously mentioned that some participants were aware that the CRT-A was, in fact, *not* a reasoning test. Concealing the intent of this and other implicit measures is essential to measurement and assessment (e.g., Greenwald & Banaji, 1995; James & Mazerolle, 2002; LeBreton, 2002). To combat this issue, participants who had a strong likelihood of being aware of this instrument – due to coursework – were removed from the dataset (i.e., those who had taken personality, I/O, and social psychology courses). However, given the large amount of research that is conducted on conditional reasoning at this institution, it is possible that other participants were aware of the intent of the CRT-A from participating in other studies. Such information was not obtained, and thus, these participants could not be eliminated from the final analysis. Further, it is possible that if participants were aware of the intent of the CRT-A, they were also able to detect the intent of the DFSSS, given its conceptual and construct similarity. Like the CRT-A, concealing the intent of the DFSSS is essential to proper functioning.

Third, the obtained reliability estimates of key measures (e.g., the DFSSS subscales) are, by and large, poor. In fact, it is somewhat surprising results were as positive as they were given the reliability estimates noted in Table 1. Further, given that reliability sets the upper bound for validity, future iterations of the DFSSS will need to increase respective estimates of reliability to maximize opportunities to demonstrate relationships with measures like the CRT-A, as well as external criteria (cf., LeBreton, 2002).

Fourth, marginal distributions for key variables are inconsistent, which can further attenuate or suppress relationships (cf., McMahon, 2009). It should be noted that some of the strongest observed relationships occurred where skew statistics between the CRT-A and DFSSS subscales were the most similar (e.g., Sample 1: Clarity; Sample 2: Negative Consequences). The CRT-A demonstrated skew and kurtosis levels that were reasonably consistent with previous research (e.g., James et al., 2005). The DFSSS subscales, however, demonstrate levels of skew and kurtosis that are more variable and representative of a measure in early stages of development. Skew and kurtosis statistics are reported in Table 5 below.

Table 5. Skew and Kurtosis Statistics for Study 1 Measures

	Sample 1				Sample 2			
Survey	*Skew*	*SE*	*Kurtosis*	*SE*	*Skew*	*SE*	*Kurtosis*	*SE*
CRT-A	.620	.205	.288	.407	.720	.208	.943	.413
Clarity	1.104	.204	1.226	.406	3.54	.205	15.635	.407
Consistency	2.366	.204	4.810	.406	.355	.206	-.686	.408
Constraints	.294	.204	-.057	.406	.381	.206	-.297	.408
Consequences - Neg.	.353	.204	-.254	.406	.974	.206	.810	.408
Consequences - Pos.	.060	.204	-.970	.406	.813	.205	-.318	.407

Given the reliability and distributional issues, a post hoc power analysis was conducted. This post hoc power analysis reveals that any observed correlation below the .24 level failed to attain more than a .80 power level. Further, for the substantially lower correlations (e.g., the .082 correlation for the positive consequences facet), power was as low as .15. This is certainly problematic, though given the conceptual similarity between the CRT-A and DFSSS, correlations were expected to be much higher than the .082 level.

Given the potential issues noted above, it should be noted that Hypothesis 1 did not go completely unsupported. Further, accounting for the fact that the DFSSS is still in initial development stages, portions of these results (e.g., the clarity facet) are quite promising. Creating, testing, and validating new items appears to be a fruitful next step within this domain of research.

More specifically, it is posited that future research efforts can expand upon the choice and number of item stems utilized in this study. The present research adapted item stems from a

measure created by Meyer et al. (in press). While providing a useful starting point for investigations regarding the differential framing of situational strength, future research should attempt to increase the number, the heterogeneity, and the specificity of item stems. By increasing the specificity of item stems, more detailed examples of the four C's of situational strength are available to test differential framing. In its current form, the DFSSS provides item stems that are relatively abstract and impersonal, thus potentially lacking adequate context or relevance for respondents. By providing more narrow or detailed examples of situational strength, the heterogeneity of item stems should also increase. This will improve upon the current research because in the present study, item stems were relatively homogenous. This was problematic because this limited the number of usable item stems as there were concerns that participants would uncover the intent of the measure, or perhaps grow agitated over "being asked the same question multiple ways."

Another way in which one may build off the present research is to select more subtle adjectives, especially for the aggressive responses. That said, some aggressive item choices can only be so subtle, and future research should also expand differential framing of situational strength investigations to other relevant constructs, such as the achievement motivation/fear-of-failure dichotomy (e.g., Barrick & Mount, 1993; James, 1998).

CHAPTER 3

STUDY 2

Hypothesis Development

Study 1 was intended to clarify the degree to which individual difference-based psychological meaning is attributed to situational strength. The tentatively affirmative results for Study 1 represent a valuable expansion and clarification of situational strength's nomological network in its own right. However, it would be even more compelling to demonstrate that differential framing translates into actual behavior (i.e., unintended negative outcomes in strong situations).

To examine the possibility of secondary outcomes in strong situations, the current study manipulated the consequences facet of situational strength (Meyer et al., 2010). That is, in the experimental condition (i.e., high situational strength operationalized through positive consequences), participants were offered a performance incentive on an experimental task (in contrast to the control condition, in which no such manipulation is introduced). Focus is placed on this particular facet of situational strength for three primary reasons. First, the use of performance incentives has a long history in not only the academic literature, but also in human capital management practices (e.g., Jacques, Rice, & Hill, 1951; Jenkins, Mitra, Gupta, & Shaw, 1998; Locke, Shaw, Saari, & Latham, 1981) and, as such, increases the ecological validity of the manipulation. Second, previous research demonstrates that AGs, in comparison to PSs, have a much higher propensity for reacting in a hostile manner to externally imposed situational pressures and demands (Bing et al., 2007b; Detert, 2007; Russell & James, 2008; Spector, 2010) that they may frame as "coercive" or "bullying" (e.g., James, 1998). Thus, the present manipulation provided an opportunity to test for both primary and secondary outcomes of

situational strength. Third, this manipulation provides a parsimonious methodology for a test of the differential framing of situational strength.

Primary Criteria

The primary criteria in this study were effort and performance. Effort was measured in three distinct ways (described in detail in the "materials" subsection of the Method). Performance consisted of a single measure. Based on the experimental manipulation, it was hypothesized that higher mean levels of effort and performance (i.e., *primary* outcomes) would be observed on an experimental task in the experimental condition. These hypotheses are based on previous research that indicates that behavioral variability on these outcomes may be constrained by high situational strength (Henry & Sniezek, 1993; Meyer et al., 2009). Specifically:

Hypothesis$_{2a}$: Higher mean effort will be observed in the experimental (i.e., high situational strength) condition.

Hypothesis$_{2b}$: Decreased variability in effort will be observed in the experimental (i.e., high situational strength condition).

Hypothesis$_{3a}$: Higher mean performance will be observed in the experimental (i.e., high situational strength condition).

Hypothesis$_{3b}$: Decreased variability in performance will be observed in the experimental (i.e., high situational strength condition).

Secondary Criteria

The secondary criterion in this study was cheating. Previous research indicates that high CRT-A scores are associated with a propensity to cheat, especially as a reaction to situational manipulations designed to elicit the motive to aggress (Bing et al., 2007b; Russell & James, 2008), as was done in the current study. Consistent with these findings, it was proposed that AGs

in the high situational strength condition would be more likely to cheat on the experimental task (i.e., when a performance reward is offered). It should be acknowledged that in the high situational strength condition, all participants had an incentive to cheat on the task. However, previous research suggests that not all participants will cheat. That is, those with a strong motive to aggress, in comparison to those with a weak motive to aggress, are much more likely to engage in this behavior (Bing et al., 2007b; James et al., 2005).

In the control or "weak" condition (i.e., no performance incentive), there was theoretically much less reason to cheat when compared to the "strong" condition. Though it is possible that AGs may cheat at a higher rate than PSs in the control condition, differences for this secondary outcome were hypothesized to be much more pronounced in the strong condition. Thus:

> *Hypothesis*$_4$: Situational strength will moderate the relationship between the motive to aggress and cheating, such that this relationship will be stronger in the experimental (i.e., high situational strength) condition than in the control (i.e., low situational strength condition).

Differential Framing

It is theorized that individuals with a strong motive to aggress engage in antisocial behaviors like cheating because they process social information through a prism of dominance versus submissiveness, hostile attribution, potential for being victimized, and so forth (James, 1998). Thus, it was proposed that in the high situational strength condition, individuals with a strong motive to aggress would have a higher propensity for framing the situational strength manipulation (i.e., a performance incentive) aggressively (e.g., a reason to cheat or attempt to

subversively gain an advantage). In other words, situational strength will be differentially framed in a way that allows AGs to rationalize cheating and ultimately supports their motive to aggress:

> *Hypothesis*$_5$: The motive to aggress (as measured by the CRT-A) will correlate positively with aggressive or hostile differential framing of high situational strength.

It follows that individuals will act in accordance with their framing of situational strength. Thus, the way in which situational strength (i.e., induction of the consequences manipulation) was interpreted is hypothesized to relate to cheating:

> *Hypothesis*$_6$: The differential framing of high situational strength will mediate the relationship between the implicit motive to aggress and secondary outcomes.

Method

Participants

The total number of participants for this study was 392; 201 participants in the experimental condition, and 191 participants in the control condition. Because a primary analysis in the current study involves testing for moderation, a relatively large sample size was utilized to maximize power (Aguinis & Pierce, 1998; Aguinis, Beaty, Boik, & Pierce, 2005; Stone-Romero, Alliger, & Aguinis, 1994). Stone-Romero and Anderson (1994) found that a *total* sample size of 120 was essentially the minimum number for detecting interactions. For this reason, the current study exceeded this threshold to attain adequate statistical power (Aguinis, 1995). Other salient factors affecting statistical power include within group correlations between subgroups, as well as subgroup proportion sizes. For instance, in their Monte Carlo simulation, Stone-Romero, Alliger, and Aguinis (1994) found that power was highest when subgroups were of equal size. This study followed the spirit of these recommendations by having a close-to-equal sample size between groups. Further, these authors found that power was also a function of the magnitude of

between-group differences of within group correlations (i.e., r = .05 for the control group, r = .35 for the experimental group). In other words, the stronger difference between groups, the higher the power. The situational manipulation in this study was intended to result in strong between group differences for correlations between predictors and criteria.

Materials

Predictor Measures

The CRT-A and PRF-E subscales utilized in Study 1 were again utilized in the present study. In addition to masking the intent of the present study, the Achievement, Endurance, Impulsivity, and Order PRF-E subscales were utilized for analyses regarding primary outcomes (e.g., consistent with situational strength theory, the observed r between participants' Endurance scores and experimental task effort is expected to be higher in the weak condition than in the strong condition).

Cattell's Culture Fair Test

Scale 3, Form A of Cattell's Culture Fair Test (Cattell, 1973) was utilized as a control measure for ability on experimental task performance. This assessment consists of four short tests ranging from 10 to 14 multiple-choice items each, for a total of 50 items. On the first test, participants are allowed three minutes to complete 13 items where the task is to complete a series of incomplete figures. For the second, participants are allowed four minutes to solve 14 items where the key task is to identify which two response choices are like, from five possible choices. For the third test, participants are allowed three minutes to solve 13 items where the key task is to choose one of six possible response choices that best fits a matrix of figures – this part of the assessment is very similar to the Raven's Progressive Matrices Test (Ravin, Court, & Raven, 1977). For the fourth and final test, participants are allowed two and a half minutes to solve 10

items where the key task is to choose the response that replicates a pattern of symbols for each item stimulus. Appendix O provides sample items for each test. Cattell's Culture Fair test has demonstrated adequate reliability in previous studies, (e.g., .74; Cattell, 1973) and correlates with constructs such as job performance (e.g., Coté & Miners, 2006; Turnage & Muchinsky, 1984), academic performance (e.g., Barton, Dielman, & Cattell, 1972), and more relevant to the present purposes, experimental task performance (Conway, Cowan, Bunting, Therriault, & Minkoff, 2002; Engle, Tuhoksi, Laughlin, & Conway, 1999; Smith & Stanley, 1987).

Experimental Task

Cover story. Participants were informed that researchers were testing a new "scoring software algorithm" for a reasoning test they developed. In order to "help the researchers validate this scoring algorithm", participants completed measures that "allowed the experimenters to know something about their individual characteristics" (i.e., the predictor measures outlined previously). Participants were under the impression that this scoring algorithm was being piloted for the cryptogram assessment (i.e., the experimental task) only.

In reality, the primary purpose of this cover story was to provide participants with an opportunity to cheat on the experimental task (i.e., cryptograms). That is, for ten of the cryptogram items, there was an "all of the above" response option. Participants were asked not to choose this option because a scoring glitch results in this response choice being scored "correct" every time, even if it is not the correct answer (cf., Russell & James, 2008). See Appendix D for verbiage regarding how this was communicated to participants.

Primary assessment. The primary assessment consisted of 20 "cryptograms" (see Bing et al., 2007a) a task in which participants "de-code" a puzzle by matching characters with corresponding letters (see Appendix F for items). Two types of cryptogram items were utilized.

First, for ten of the 20 total items, participants were asked to choose from four potentially valid response options. Second, for the other ten items, participants had four total response options per item, where three are potential responses and the final option is "all of the above." Participants will be asked not to choose the "all of the above" option because of a "computer glitch" that will erroneously score the item as correct (cf., Russell & James, 2008).

Manipulation Check

Situational Strength at Work (SSW) Scale

Meyer et al. (in press) created a measure of situational strength based on the four facets approach outlined by Meyer et al. (2010). Each of the resultant facet scales demonstrated acceptable levels of internal consistency: clarity (.94), constraints (.94), consistency (.91) and consequences (.89). In addition to showing ample convergent and discriminant validity, these authors noted that scores from this scale yielded several effects that were consistent with underlying theory. An adapted version of this scale was used as a manipulation check to ensure that the high consequences condition was, indeed, viewed as more consequential than the no consequences condition by participants. See Appendix L for items.

Criterion Measures

Differential Framing

Differential framing was assessed under the guise of a memory test. Participants in the experimental condition were provided with an item stem (e.g., "The manner in which experimental rewards were determined was:"), and were then asked to choose the adjective that they perceive as most fitting. For each adjective list, two response choices were nonsensical distractors; of the remaining two choices, one reflected an aggressive interpretation (e.g., "unfair"), whereas the other did not (e.g., "unsound"). The response choices were based on the

JMs outlined by James et al. (2004). As with Study 1, all Study 2 items were reviewed and adjusted by multiple members of two psychological research laboratories, as well as two faculty members familiar with both differential framing and situational strength. Distractor items were interspersed to prevent participants from uncovering the real intent of the survey (i.e., "The first survey you took was a test of:"). This measure was scored the same way as the CRT-A: +1 for each aggressive interpretation of situational strength. Items can be found in Appendix H.

Primary Criteria

Performance. Overall performance was measured by the number of cryptogram items correctly solved.

Effort. Because effort is often viewed as one of the most difficult psychological concepts to measure (e.g., Ambrose & Kulik, 1999; Kanfer, 1990; Yeo & Neal, 2004), multiple measures were utilized to better represent its construct space. First, a measure adapted from work by Fisher and Ford (1998), as well as Kanfer and colleagues (Kanfer & Ackerman, 1989; Kanfer, Ackerman, Murtha, Dugdale, & Nelson, 1994). This nine-item measure was intended to assess off-task mental activity (i.e., indicative of a *lack* effort and devotion of attentional resources); a sample item includes "I took 'mental breaks' while working." The Ford & Fisher (1998) measure demonstrated a .87 internal consistency reliability and predicted performance on an experimental task at a statistically significant level. See Appendix I for a full list of items.

The second operationalization of effort was adapted from Brown and Leigh's (1996) measure of work intensity, which they defined as an employee's "energy exerted per unit of time" (p. 362). A sample item includes "When I worked on this experimental task, I really exerted myself to the fullest." This five-item measure demonstrated a .83 overall internal consistency

reliability, and predicted sales volume (e.g., job task performance) for a sample of salespeople. See Appendix J for a full list of items.

Secondary Criteria

Cheating. Cheating was quantified by the number of cryptogram items for which participants chose the "all of the above" response option. Again, this is an index of cheating because participants will be asked not to choose this option because a computer glitch will score this response choice as "correct" irrespective of its correctness.

Procedure

The present study was conducted via secure online software. After giving consent, participants provided demographic data and completed all predictor measures. No experimental manipulation was introduced until all predictor data were collected.

After an experimental manipulation (see two subsequent sections below for details), participants completed the cryptogram measure (see Appendix F). There were clear instructions as well as two example items to aid participants' understanding of the task. After completing the 20 item cryptogram measure, participants then responded to two effort surveys. Participants were instructed that they should only reference their performance on the cryptogram survey when responding to these two surveys. Then, participants completed the SSW as a manipulation check to ensure that the experimental condition is perceived as more consequential (i.e., stronger) than the control condition.

This general procedure was the same for all participants, aside from the differences introduced below.

Experimental/High Situational Strength Condition

For this experimental manipulation, not only were participants under the impression that they were pilot testing an analytic ability assessment, but that the top ten highest performers would earn a $30 Visa gift card. Also, for participants in this condition, the final survey (presented as a "memory survey") was intended to assess the degree to which situational strength is differentially framed. Thus, this survey was comprised of both differential framing items as well as distractor items concerning participants' memory of experimental tasks and procedures. For instance, when provided with the stem "the use of a performance reward made the experiment feel more," participants were to choose from the operational adjectives of "competitive" (PS) or "combative" (AG). See Appendix H for illustrative items.

Control Condition/Weak Situational Strength Condition

In this condition there were no positive consequences (i.e., no performance rewards) for participants on the experimental task. Participants were simply informed that they were pilot testing an analytic ability assessment.

Results

Analyses relevant to this study can be usefully divided on the basis of four outcomes of interest: the manipulation check, primary outcomes (i.e., effort and performance), secondary outcomes (i.e., cheating), and differential framing. Tests of these variables are detailed in the following subsections. Comprehensive correlation tables (one for the control condition, one for the experimental condition) of Study 2 measures are provided in Appendices P and Q, respectively.

Manipulation Check

The abridged SSW (Meyer et al., in press) was utilized as a manipulation check. Descriptive statistics are provided below in Table 6.

Table 6. Descriptive Statistics for Study 2 Manipulation Check

SSW Facet	Control Condition			Experimental Condition			
	N	*M*	*SD*	N	*M*	*SD*	*p-value*
Clarity	173	7.50	1.95	185	8.29	1.37	< .001
Consistency	172	6.20	1.77	185	7.06	1.93	< .001
Constraints	175	4.70	2.20	185	4.43	2.00	*ns*
Consequences (Neg.)	172	3.75	1.94	189	4.70	2.26	< .001
Consequences (Pos.)	172	9.01	4.16	185	17.38	2.56	< .001

Note. The Clarity, Consistency, Constraints, and Consequences (Neg.) scales are based on the best two performing items adapted from Meyer et al. (in press). The Consequences (Pos.) scale, most relevant to the current study, is based on four total items.

Significant mean differences on the positive consequences facet were expected between situational strength conditions. Independent groups t-tests demonstrated mean differences between conditions in the expected direction, thereby supporting this expectation. However, statistically significant mean differences were also observed for the Clarity, Consistency, and Negative Consequences facets. Though somewhat counterintuitive and unexpected, similar findings have been noted elsewhere (e.g., Meyer et al., in press). Nevertheless, the positive consequences facet scale score differences were the most pronounced, consistent with expectations.

Primary Outcomes

Hypotheses 2 and 3 concerned the degree to which primary outcomes would differ between conditions, presumably due to the experimental manipulation in the strong situation condition. Specifically, Hypothesis 2 proposed higher levels of effort and restricted variability in the experimental condition. Hypothesis 3 proposed higher performance levels and restricted variability in the experimental condition. Table 7 illustrates mean level results that are completely consistent with these predictions, though variance results are slightly less consistent.

Table 7. Descriptive Statistics for Study 2 Primary Outcomes

Primary Outcome	Control Condition			Experimental Condition			
	N	*M*	*SD*	N	*M*	*SD*	*p-value*
Cryptogram Performance	201	3.69	2.56	191	4.75	2.48	< .001
Off-Task Mental Activity	168	24.88	6.09	183	23.57	5.84	< .05
Work Intensity	173	18.32	5.90	187	20.78	4.95	< .001

The above results are consistent with situational strength theory in that higher levels of effort and performance were demonstrated in the strong condition, at a statistically significant level. It should be noted that mean scores for Off-Task Mental Activity are lower in the strong condition. This, however, is the expected pattern of means for this measure because this construct represents a *lack* of effort, in other words, or an "effort-inverse" index. Regarding variability, Levene's test of homogeneity of variances shows that, although differences in variability demonstrate the expected pattern (i.e., more variability in the weak condition), only the Work

Intensity scale demonstrates less variability in the strong condition at a statistically significant level ($F = 1.42$, $p < .05$). Thus, with regard to mean differences, Hypotheses 2 and 3 were supported. With regard to decreased variability between conditions, the pattern of results is consistent with hypotheses, but statistical significance is only observed for the Work Intensity index of effort.

Further analyses were conducted to explore primary outcomes. For instance, correlations between personality subscales and primary outcomes were expected to be stronger in the control or weak condition (e.g., Beaty et al., 2001; Meyer et al., 2009), Thus, correlational data between predictor measures (e.g., PRF-E scales) and primary criteria were computed. Correlational data are provided in Table 8 below.

Table 8. Correlation Between Predictor Variables and Primary Outcomes (By Condition)

	Control Condition			Experimental Condition		
	Perf	Effort 1	Effort 2	Perf	Effort 1	Effort 2
PRF-E Achievement	-.030	-.086	.108	.045	-.169*	.150*
PRF-E Endurance	.009	-.113	.050	-.016	-.225*	.136†
PRF-E Impulsivity	-.086	.159*	-.196*	-.132†	.222*	-.106
PRF-E Order	-.069	-.072	.213*	-.164*	-.078	-.032
Cattell's Test	.350**	.071	-.171*	.399**	-.094	.019

Note. * = $p < .05$; † = $p < .10$. Effort 1 = Off-Task Mental Activity; Effort 2 = Work Intensity. In the control condition, correlations are based on sample sizes ranging from 122 (Cattell's Test sample size) to 173. In the experimental condition, correlations are based on sample sizes ranging from 111 to 187.

Although mean results for primary outcomes noted in Table 4 demonstrate results consistent with situational strength theory, correlations between self-reported personality characteristics and primary outcomes largely do not. In fact, portions of the above data illustrate findings directly counter to what is expected by the basic tenets of situational strength theory (i.e., stronger correlations between personality and behavior in the strong condition). For this reason, no formal tests for moderation were conducted. This is because the correlational data in Table 6 suggest that moderated relationships consistent with situational strength theory are *not* even possible (i.e., stronger correlations in the weak condition). This is in contrast to previous investigations (e.g., Beaty et al., 2001; Meyer et al., 2009), where initial correlational data were consistent with situational strength theory, thereby suggesting that formal tests for moderation should be conducted.

Due to the nature of the findings reported above, analyses are presented below where cognitive ability (e.g., operationalized by Cattell's Culture Fair Test scores) is controlled. Table 9 illustrates that findings are largely equivalent with or without cognitive ability controlled, in that the observed pattern of results are inconsistent with situational strength theory.

Table 9. Performance Correlations, Controlling for Ability

Variable	ß Control Condition	ß Experimental Condition
Cattell's Culture Fair Test	.350**	.399**
PRF-E Achievement	.015	.110
PRF-E Endurance	.084	-.106
PRF-E Impulsivity	.024	-.131
PRF-E Order	-.113	-.219**

Note. ** = p < .001; * = p < .05.

Secondary Outcomes

Hypothesis 4 proposed that situational strength would moderate the relationship between CRT-A scores and cheating, such that the relationship would be stronger in the experimental condition than in the control condition. Results were inconsistent with predictions but consistent with extant situational strength theory. That is, CRT-A scores were more closely associated (and in the expected direction) with cheating in the weak condition (r = .163, p <. 05) than in the strong condition (r = -.087, *ns*). Due to this difference between correlations, a formal test for moderation was conducted. Consistent with recommendations (e.g., Cohen, Cohen, West, & Aiken, 2003), CRT-A scores were centered by subtracting the observed mean for each score. This centered score was used to compute the interaction term. Resultant analyses indicate that situational strength moderated this relationship. More specifically, obtained results were inconsistent with what was proposed in Hypothesis 4, but consistent with extant situational strength theory. Table 10 shows the results for this moderator analysis.

Table 10. Moderated Multiple Regression Analysis for Cheating

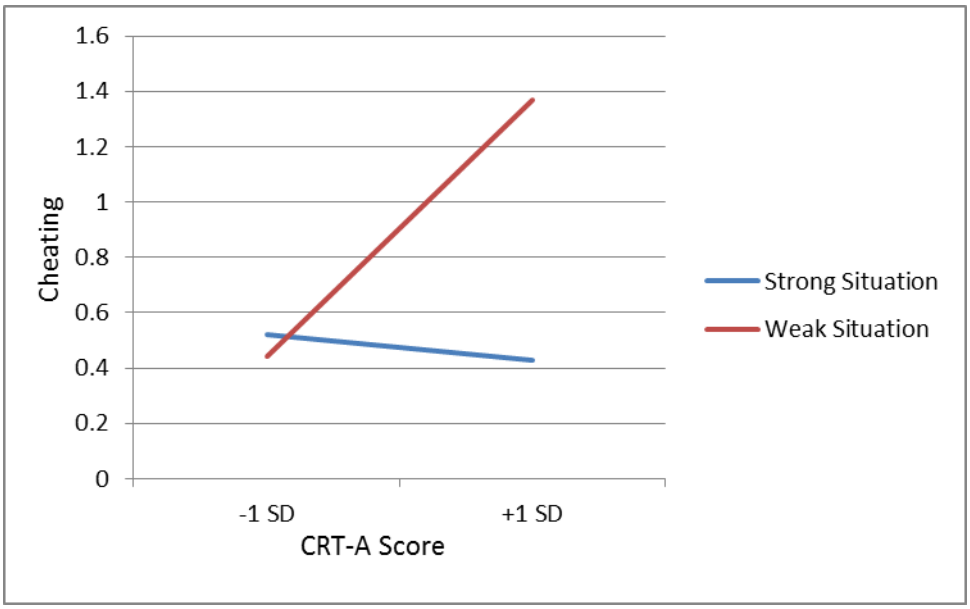
Variable Entered	ß	*Multiple R*	R^2	ΔR^2
CRT-A	.038	.038	.001	-
Condition	-.081	.089	.008	.007
CRT-A x Condition	-.398**	.151**	.023**	.015**

Note. ** = p < .05.

An interaction plot is provided below in Figure 1. Consistent with previous research (e.g., Frost, Ko, & James, 2007), predictor data are reported along the X axis, for both one standard deviation

above and below the observed mean. The lines represent the strong and weak conditions, respectively.

Figure 1. Interaction plot for secondary outcomes.



It should also be noted that there were no significant mean differences ($F = 1.358$, $p = .245$) between cheating scores when comparing the control ($M = .687$, $SD = 1.893$) and experimental ($M = .487$, $SD = 1.454$) conditions.

Consistent with findings reported for primary outcomes, results are presented with cognitive ability controlled. It was hypothesized that participants would have a less compelling reason to cheat when there was no incentive for performance (i.e., the weak condition) as opposed to when there was a performance incentive (i.e., the strong condition). It is noteworthy that with cognitive ability controlled, relationships between CRT-A and cheating scores are in the exact opposite pattern of hypothesized findings. Results are presented in Table 11 below.

Table 11. Cheating Analyses Controlling for Ability

Variable	ß Control Condition	ß Experimental Condition
Cattell's Culture Fair Test	-.163†	-.210†
CRT-A	.148	-.164†

Note. † = p < .10.

This pattern of findings suggests that to AGs, having one's performance scored (i.e., the strong condition) is akin to having one's performance "monitored" or "watched." Thus, AGs appear less likely to cheat if they think they may be caught. This pattern of findings has also been reported elsewhere (e.g., Brooks, 2010).

Differential Framing

Hypothesis 5 stated that one's implicit motive to aggress will be positively correlated with hostile or aggressive interpretations of high situational strength. This hypothesis was tested the same way as described in Study 1. That is, a zero-order correlation was computed between the CRT-A and one's differential framing score. This hypothesis was not supported (r = -.093, *ns*).

Hypothesis 6 stated that the differential framing of high situational strength will mediate the relationship between the implicit motive to aggress and secondary outcomes (see Figure 2 for an illustrative model). The mediation testing approach for untested models lacking previous empirical attention (i.e., Ordinary Least Squares regression) advocated by James and colleagues (James, 2008; James & Brett, 1984; James, Mulaik, & Brett, 2006) was utilized to test this model. Results are presented in Table 12 below – Hypothesis 6 was not supported.

Table 12. Hierarchical Multiple Regression (Mediation) Analysis

Predictor	Step	ΔR^2	*SE*	*b*	*p*
Differential Framing Score	1	.049	.101	.049	*ns*
CRT-A	2	.085	.053	-.070	*ns*
CRT-A	1	.074	.052	-.074	*ns*
Differential Framing Score	2	.085	.102	.043	*ns*

Supplemental Analysis

To further explore the phenomenon of differential framing of situational strength, supplementary analyses were conducted. Though originally intended to assess participants' perceptions of their respective experimental condition (i.e., weak situation, strong situation), the manipulation check may also provide a useful criterion for differential framing. This is because the manipulation check is focused on how participants perceive the four facets of situational strength within the context of the experiment. Thus, correlations were computed between CRT-A and the adapted SSW (Meyer et al., in press) subscale scores. Results are presented in Table 13 below.

Table 13. Correlation Between CRT-A and SSW (Manipulation Check) Facet Scores

SSW Facet Score	Control Condition	Experimental Condition
	CRT-A	CRT-A
SSW Clarity	.144†	-.065
SSW Consistency	.226**	.173*
SSW Constraints	-.066	-.080
SSW Neg. Con.	.184*	.315**
SSW Pos. Con.	.207**	-.137†

Note. ** *= p < .01;* * *= p < .05;* † *= p < .10.*

As is seen from the above, the implicit motive to aggress is associated with perceptions of situational stimuli (i.e., situational strength), across conditions – providing general evidence of differential framing. Of particular note are the findings obtained from both of the consequences facet scores (i.e., the focal facet for this dissertation). First, AGs tended to report *both* conditions as having a higher degree of negative consequences. This overall finding may reflect AGs propensity to view surrounding social stimuli in a hostile or negative affect-laden way (e.g., James, 1998). This relationship is stronger in the experimental condition, suggesting that AGs viewed the use of a performance reward (i.e., the key characteristic of the experimental condition) as more consequential – in a negative way – than their PS counterparts. Another explanation for this finding is that AGs were simply attempting to sabotage the researchers' findings. That is, there is no compelling reason that participants would endorse an item such as "for the Cryptogram survey, my decisions had extremely important consequences for other people." Thus, given AGs propensity for sabotage and passive aggressive behavior (e.g., Frost,

Ko, & James, 2007; James et al., 2005), endorsing these items may have been an attempt to undermine researchers efforts and skew results.

Regarding positive consequences, AGs generally reported that their performance would be rewarded in the weak condition. Given that there was no mention of a performance reward in the weak condition, this finding is somewhat puzzling. Three explanations are put forth. First, AGs tend to over-perceive hostile intent, or furtive motives on the part of others (e.g., James, 1998), and this finding may reflect the fact that AGs were suspicious anticipating deception in this experiment (i.e., "there must have been a reward for performance if they are asking about it"). Second, this finding may be reflective of rationalization. That is, AGs had just cheated on the experimental task, and when given the opportunity endorse items about the positive consequences associated with cheating, they did. Third, this finding could simply reflect sabotage attempts from AGs. That is, there were clearly no rewards for performance in the weak condition, and by indicating that there was indeed a performance reward, AGs could simply be attempting to sabotage or skew obtained results for the researchers.

In the strong condition, there was a significant negative correlation between the implicit motive to aggress and perceptions of positive consequences. Two explanations are put forth that are conceptually similar to the explanations offered for the findings obtained in the weak condition. The first explanation concerns AGs tendency to perceive hostile intent or furtive motives on the part of others, or to generally be suspicious (e.g., James, 1998). That is, participants (particularly AGs) were offered an opportunity to cheat, but were also told their performance would be rewarded (i.e., their performance would be "monitored" or "watched"). It is theoretically plausible that AGs, based on the coinciding opportunity to cheat with the notion of being monitored or caught, concluded that the experimenters were trying to "catch" or "entice

them to cheat." Thus, the negative correlation between CRT-A and positive consequences facet scores may be reflective of AGs' suspiciousness, or general distrust that there was actually a performance reward; they just did not buy the experimental cover story. The second explanation is consistent with what has been put forth previously, in that these findings are simply reflective of AGs attempts to sabotage research findings.

Study 2 Discussion

Findings from the second study of this dissertation are largely consistent with extant situational strength theory, though less consistent with the propositions put forth regarding the prospect of differential framing and secondary outcomes of situational strength. Potential reasons for this pattern of results are discussed below.

The first issue worthy of mention is the data collection methodology and the resultant data. Data were collected online. This method was selected because it was theorized that the use of undergraduate participants may introduce an important situational strength-relevant confound: the Georgia Institute of Technology Honor Code. That is, one of the key criteria in this study was cheating, and there were concerns that the Honor Code may deter undergraduates from cheating (i.e., the Honor Code functions as situational strength). For this primary reason, an undergraduate participant sample was not utilized.

This is not to say, however, that online data collection does not pose its own issues (see Tippins, Beaty, Drawgow, Gibson, Pearlman, Segall, & Shepherd, 2006 for a comprehensive review) that are relevant to the current study, such as cheating (e.g., Beaty, Fallon, & Shepherd, 2002), anxiety (e.g., Igbaria & Parasuraman, 1989), distractions in un-proctored settings (e.g., Shepherd, Do, & Drasgow, 2003), inconsistencies when tests are speeded (e.g., Mead & Drasgow, 1993; Segall, 1997), and inconsistencies with paper-and-pencil results of the same

surveys (e.g., Stanton, 1998). More particular to the present study, there were two issues that may have resulted in non-optimal data.

The first is that StudyResponse, who was responsible for managing online data collection, first told participants that the duration of the study would last at most 20 minutes. This was a strong under-estimation that may have led to participant resentment and/or careless responding. Though steps were taken to eliminate careless respondents (e.g., CRT-A illogical scores, PRF-E Infrequency scores), these methodologies are not perfect. The other issue that became apparent in this online data collection was compensation. Participants were paid $5.00 USD for their participation, where anecdotal evidence from previous investigations (e.g., Meyer et al., in press) indicated that this was reasonable compensation in previous studies. In this study, however, anecdotal evidence suggested that this was too low. This may also adversely affect participant motivation. These issues are pervasive and have the potential to influence all study predictions. Now the focus turns to a discussion of the specific predictions of this study.

Primary Outcomes

Regarding means and variances of primary outcomes, results were largely consistent with predictions. However, given these pattern of results, it was expected that correlations between PRF-E subscales and primary outcomes would be consistent with previous situational strength research (e.g., correlations stronger in weak conditions). This pattern of results was not observed. This is potentially (though not likely) a measurement issue, as the PRF-E has not been utilized in previous investigations in this area of research. And although confirmative results have been obtained with self-report measures of personality previously (i.e., Meyer et al., 2009), issues with this approach to measurement are well-noted (James & Mazerolle, 2002; Morgeson, Campion, Dipboye, Hollenbeck, Murphy, & Schmitt, 2007a; 2007b).

It should also be noted that the experimental task was intended to be correlated with ability as little as possible. This, however, was not the observed relationship. It is possible that the experimental task was too *g*-loaded, lacking a substantial association with personality such that there were no meaningful or statistically significant differences between conditions – though analyses wherein cognitive ability is controlled indicate this is not the case. Future research should seek experimental tasks that are less associated with cognitive ability and more associated with personality-based decisions to allocate effort.

Secondary Outcomes

Regarding secondary outcomes, it was observed that relationships between CRT-A scores and cheating scores were weaker in the experimental (i.e., strong) condition than in the control (i.e., weak) condition. These results were inconsistent with predictions, but consistent with extant situational strength theory. The observed pattern of results may be due to the fact that participants in the strong condition were under a heightened awareness of being monitored (especially AGs), because their performance would be scored and potentially rewarded. This potential "threat" of being monitored or watched could serve as a deterrent to cheating. Further, it is possible that participants may have been under the impression that, should they cheat, they would no longer be eligible for the performance reward. Participants in the weaker condition may have, therefore, had less justification for thinking their performance was being scored and/or monitored.

Differential Framing

One of the key propositions of this dissertation was that situational strength (in this case a performance reward) would be differentially framed, based on one's level of an implicit motive to aggress. This hypothesis was not supported. It is possible that no relationship exists in the

population, but three alternate explanations should also be noted. First, item properties are by and large, poor. Item characteristics are listed in Table 14 below.

Table 14. Skew and Kurtosis Statistics for Study 2 Measures, Strong Condition

Survey	*Mean*	*SD*	*Skew*	*SE*	*Kurtosis*	*SE*
CRT-A	5.13	2.32	.17	.18	-.48	.35
DF Item 1	.11	.31	2.57	.18	4.67	.35
DF Item 2	.05	.23	4.01	.18	14.26	.35
DF Item 3	.16	.37	1.85	.18	1.43	.35
DF Item 4	.12	.33	2.32	.18	3.44	.35
DF Item 5	.04	.20	4.56	.18	18.96	.35
DF Item 6	.12	.33	2.31	.18	3.35	.35
DF Item 7	.07	.25	3.42	.18	9.83	.35
DF Item 8	.14	.35	2.11	.18	2.49	.35
DF Item 9	.49	.50	.06	.18	-2.02	.35
DF Item 10	.04	.20	4.57	.18	19.08	.35

Note. SE = Standard Error.

Thus, there may be a relationship in the population, but the non-optimal item characteristics observed (which also contributed to poor observed reliabilities) in this study were unable to reveal such an association. Little variability was observed for these items, which may reflect the fact that this test lacked face validity and respondents were aware of the intent of the test – which is extremely problematic for implicit measurement (e.g., James, 1998; LeBreton et al., 2007). This issue is further detailed below.

Differential framing is usually measured under the guise of an adjective test (cf., McMahon, 2009; LeBreton, 2002). In this study, differential framing was assessed under the guise of a memory test, a second issue worthy of mention. Though indirect in nature, it is uncertain if this particular measurement style engages the same mechanisms present in conditional reasoning or an "adjective test." In other words, previous examinations of differential framing are largely logic-based, whereas this approach was memory-based. Determinations regarding the relative measurement effectiveness of a "memory test" versus an "adjective test" cannot be determined with these data, but is a worthy further investigation. Third (and potentially related to the first alternative explanation), are face validity concerns over differential framing items. That is, concealing the intent of items, especially those heavily laden with aggressive language, is difficult. It should be noted that distractor items were added to maintain face validity, but it is possible that participants became aware of the intent of the measure. Thus, perhaps future research should use response options that are more subtly shaded toward aggressive versus prosocial responses.

CHAPTER FOUR
GENERAL DISCUSSION

In this dissertation, an expanded approach to situational strength that accounts for the potential role of individual differences vis-à-vis differential framing was proposed for empirical examination (i.e., exploring both primary *and* secondary outcomes). Findings obtained in Study 1 indicate that, to some degree, discrepant psychological meanings are attached to the same social stimulus (i.e., situational strength). Further refinement of DFSSS items should strengthen this finding. Study 2 focused not only on differential framing, but also the possibility of secondary outcomes. Hypotheses for primary outcomes were generally supported, whereas hypotheses for differential framing and secondary outcomes were not.

Given this inconsistent pattern of findings across studies, further research is needed. For instance, the results of Study 1 suggest that instances of positive consequences (the manipulation utilized in Study 2) demonstrate the least evidence for differential framing. Given that other facets appear to be more consistently differentially framed in Study 1 (e.g., clarity), future studies employing a specific, behavioral methodology seen in Study 2 should seek to manipulate these facets.

It was also previously noted that developing differential framing items that conceal the intent of measurement is difficult (Lawrence James, the creator of conditional reasoning, has often quipped that "it is only so easy to hide a hostile attribution bias"). Further, to frame clear instructions about one's job task in a hostile manner, for example, one must have a very strong motive to aggress. For a construct such as constraints, on the other hand, a strong motive to aggress may not be a prerequisite for one to draw hostile conclusions about this work characteristic. Thus, relationships with the motive to aggress may be attenuated due to the overall negative nature of the both the constraints and consequences constructs. Mean-level data support

this assertion in that the generally more negative constraints and consequences facets, in comparison to the generally more positive clarity and consistency facets, demonstrate higher mean facet scores on the DFSSS at a statistically significant level. Because some facets appear less amenable to differential framing than others from an implicit motive to aggress paradigm, other individual differences constructs should be explored. The achievement motivation/fear-of-failure constructs appear to be promising candidates to further explore differential framing of situational strength.

Conclusion

"Stimulus-response" approaches to situational strength explore the ways in which behavioral variability is uniformly decreased in strong situations. That is, individuals in strong situations may be pressured or even forced (e.g., to avoid losing one's job) to behave in a way that nullifies the influence of non-ability individual differences on primary (i.e., intended) outcomes. However, research from social-cognitive approaches (i.e., differential framing) suggests that different types of people may have different secondary reactions to instances of high situational strength. Returning to a previous example, if an individual with a strong motive to aggress frames very explicit directions (i.e., high clarity, high situational strength) as "domineering" instead of "instructive," it follows that behaviors and attitudes consistent with this hostile framing should follow. This proposition was tested but received equivocal support in this dissertation, but these mixed findings should not necessarily be interpreted as a complete lack of support for the social-cognitive approach. Instead, the contention that situational strength may constrain behavioral variability on primary outcomes, while simultaneously serving as a stimulus for differential framing and subsequent secondary outcomes, should continue to be tested using better measures, different personality traits, and different facets of situational strength.

APPENDIX A FOUR FACETS OF SITUATIONAL STRENGTH	
Facet	**Definition**
Clarity	The extent to which cues regarding work-related responsibilities or requirements are available and easy to understand.
Consistency	The extent to which cues regarding work-related responsibilities or requirements are compatible with each other.
Constraints	The extent to which an individuals freedom of decision and action is limited by forces outside his or her control.
Consequences	The extent to which decisions or actions have important positive or negative implications for any relevant person or entity.

Meyer, Dalal, & Hermida, 2010 (pp. 125-127)

APPENDIX B JUSTIFICATION MECHANISMS FOR AGGRESSION	
Justification Mechanism	**Definition**
Hostile Attribution Bias	Tendency to see malevolent intent in actions of others. Even benign or friendly acts may be seen as having hidden, hostile agendas designed intentionally to inflict harm. An especially virulent form of this bias occurs when benign or positive acts are attributed to selfish concerns and negative incentives (e.g., a helpful suggestion by a supervisor is interpreted by an aggressive subordinate as an intentional attempt to demean his or her work).
Derogation of Target Bias	An attempt to make the target more deserving of aggression. For example, a number of negative characteristics may be ascribed to the target (e.g., corrupt, dishonest, evil, immoral, underhanded, unethical, untrustworthy). Or, the positive traits of the target may be ignored, undervalued, or depreciated
Retribution Bias	Tendency to confer logical priority to reparation or retaliation over reconciliation. Reflected in implicit beliefs that aggression is warranted to restore respect or exact restitution for a perceived wrong. Bias is also indicated by whether a person would rather retaliate than forgive, be vindicated as opposed to cooperate, and obtain revenge rather than maintain a relationship. This bias underlies classic rationalizations for aggression based on wounded pride, challenged self-esteem, and disrespect.
Victimization by Powerful Others Bias	Tendency to frame self as a victim and to see self as being exploited and taken advantage of by the powerful (e.g., government agencies). Sets the stage for arguing that aggression is acting out against injustice, correcting an inequity, redressing wrongs, or striking out against oppression.
Potency Bias	Tendency to frame and reason using the contrast of strength versus weakness. For example, people with a strong potency bias tend to frame others on a continuum ranging from (a) strong, assertive, powerful, daring, fearless, or brave to (b) weak, impotent, submissive, timid, sheepish, compliant, conforming, or cowardly. This bias is used to justify aggression via arguments such as (a) aggression (e.g., confrontations with teachers, fights with coworkers), which results in being perceived as brave or as a leader by others; and (b) weakness/submissiveness, which invites aggression because it shows that one is willing to submit.
Social Discounting Bias	Tendency to call on socially unorthodox and frequently antisocial beliefs to interpret and analyze social events and relationships. Disdainful of traditional ideas and conventional beliefs. Insensitive, unempathetic, unfettered by social customs. Directly cynical or critical, with few subliminal channels for routing antisocial framing and analyses.

From James et al., 2004 (pg. 275)

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS

Instructions: You will be presented with descriptions of work situations. Following each description, there will be four (4) adjectives that may or may not describe the situation. For each question, identify the one answer that is most logical or descriptive based on the information presented. Sometimes this will require you to cut through answers that look logical or descriptive in order to get to the most genuine or "real" answer. Please mark your answers where appropriate on the answer sheet.

SAMPLE ITEM - Work computers are slow, out-dated, and impede work progress.

a. Secure
b. Cordial
c. Damp
d. Frustrating

Frustrating best describes the situation. Frustrating is the best choice because all employees at this company would likely be frustrated by having to use outdated equipment that hinders their work progress.

Facet	Stem	[a]Response Choices			
Constraints	Procedures prevent an employee from working in his/her own way.	Dictatorial+	Bureaucratic*	Temporary	Dazzling
	An employee is prevented from making his/her own decisions.	Stifling+	Constraining*	Deep	Completing
	Employees have no control over their work.	Tyrannical+	Restrictive*	Virtuous	Engaging

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Constraints	An employee is prevented from choosing how to do things.	Oppressive+	Controlling*	Correlational	Credible
	An employee's freedom to make decisions is limited by other people.	Coercive+	Constrictive*	Fresh	Bare
	A lack of autonomy limits people's behaviors.	Manipulative+	Regimented*	Shaded	Magical
Clarity	An employee is told exactly what is expected from him/her.	Bossy+	Instructive*	Virtual	Elegant
	Precise information is provided about how to properly do one's job.	Pushy+	Informative*	Burned	Helpless

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Clarity	Specific information is provided about what is expected from an employee.	Commanded+	Structured*	Muddy	Expensive
	An employee is told exactly what to expect.	Binding+	Predictable*	Small	Inventive
	Straightforward information is provided about what an employee needs to do to succeed.	Controlling+	Clear*	Wooden	Wet
	Precise information is provided about how to behave.	Limiting+	Unambiguous*	Exotic	Large
	Expectations are very clear.	Overbearing+	Specific*	Wild	Loving
	Very clear information is provided about how to properly do one's job.	Picky+	Precise*	Cosmopolitan	Bitter
Consequences	There are consequences if an employee deviates from what is expected.	Vindictive+	High-stakes*	Passive	Dry
	Very serious consequences occur when an employee makes an error.	Punishing+	Demanding*	Sweet	Warm

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Consequences	Employees' mistakes are subject to harsh consequences from supervisors.	Tyrannical+	Stern*	Scholarly	Homely
	Important outcomes are influenced by an employee's actions.	Punishing+	Meaningful*	Round	Small
	Other people are put at risk when an employee performs poorly.	Manipulative+	Demanding*	Stylistic	Covered
	Mistakes are more harmful than they are for almost all other jobs.	Disciplinary+	Sobering*	Famous	Cheap
	Punishments are given to those who perform poorly.	Vengeful+	Unforgiving*	Agreeable	Vivacious
	People who perform poorly are likely to be fired.	Ruthless+	Motivating*	Tranquil	Dreamy
	Employees are responsible for mistakes.	Culpable+	Accountable*	Romantic	Patient
	Only the top 10% of best-performing employees receive bonuses.	Combative+	Competitive*	Guilty	Premium
	Management creates competition for special performance-based rewards.	Cutthroat+	High-stakes*	Lazy	Coherent

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Consequences	Performance incentives are used to get the best out of employees.	Coercive+	Motivating*	Official	Caring
	Employees who do <u>not</u> perform at the highest level do <u>not</u> receive special rewards (e.g., paid vacations, hotel vouchers, etc.).	Punishing+	Mobilizing*	Fraternizing	Furnishing
Consistency	All requirements are completely compatible with each other.	Limiting+	Uniform*	Baseless	Delectable
	Procedures remain completely consistent over time.	Tedious+	Constant*	Cute	Ecstatic
	Supervisor instructions always match the organization's official policies.	Redundant+	Consistent*	Deep	Tight
	Different sources of work information always provide the same message.	Excessive+	Orderly*	Hilarious	Slow

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Consistency	Priorities remain the same over time.	Unbending+	Stable*	Pale	Loud
	All responsibilities are highly consistent with each other.	Redundant+	Efficient*	Tanned	Smashed
	Informal expectations agree with official policies.	Indoctrinating+	Socializing*	Incongruous	Blazing
	Specific information is provided about which tasks to complete	Strict+	Guided*	Expensive	Parallel
Distractors	The supervisor publicly embarrasses those who don't follow directions.	Reasonable	Retro	Heavy	Hostile
	The pace of an employee's work is controlled for them.	Dutiful	Daunting	Resurrecting	Passive
	Information is generally the same, no matter who provides it.	Endangered	Reliable	Redundant	Helpless
	Work tasks are to be completed in a specific way.	Cheap	Sweet	Strategic	Mundane

APPENDIX C
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS (continued)

Facet	Stem	Response Choices			
Distractors	Working long hours is expected.	Antisocial	Exhausting	Liberal	Small
	Employees who perform poorly are punished accordingly.	Grand	Defunct	Ruthless	Competitive
	Work tasks are structured for employees.	Lethargic	Rigid	Systematic	Fresh
	Work tasks are structured for employees.	Lethargic	Rigid	Systematic	Fresh
	Procedures remain completely consistent over time.	Dependable	Monotonous	Special	Stylish
	Priorities remain consistent over time.	Bare	Mundane	Playful	Orderly

+ - Aggressive Alternative
* - Prosocial Alternative
[a]Operational items are provided with the aggressive response first, the prosocial response second, and the distractor choices third and forth, respectively. For actual administration, both items and order of response choices were randomized from participant to participant.

APPENDIX D
CRYPTOGRAM TITLE PAGE (COVER STORY)

Your Next Survey

For the following survey, we are testing a new software scoring algorithm. To encourage you to give this survey your full effort so that we have the most valid results possible, **we will provide a $30 Gift Card to the top ten (10) performers**, so please do your best!

Please note **this reward is only applicable for your score on the next survey** you will take. Instructions and background information will follow this page so please read them carefully so that you understand what to do.

As previously stated, we are testing a new scoring algorithm for the following survey. Please note that this survey is **still being developed** and, therefore, may contain various glitches. For example, some internet browsers may incorrectly display some colors, fonts, item formats, etc.

One scoring glitch we have noticed is that choosing the "all of the above" response option may lead to the item being scored as "correct" - even if it is not the correct answer. Thus, for the following survey, **please do not click the "all of the above" response option**.

Thank you for your participation thus far. The cryptogram survey is next. If you would like to take a break, now would be a good time to do so. Please complete this survey when you are free from distractions and may focus on this survey entirely. Once you are ready, please click the next button to begin your cryptogram survey.

APPENDIX E
CRYPTOGRAM SURVEY INSTRUCTIONS - STRONG CONDITION

The next survey consists of items called "cryptograms." A cryptogram is a puzzle where a word or a group of words are coded by substituting each letter in the original word with a different letter. The challenge of the puzzle is to 'decode' the letters you see to find the original word or words.

Please note that if more than one word is being decoded that the correct response does not have to make sense - rather it is just a group of words. See second example below.

For each item, you will be presented with a coded word or group of words. You will then choose the correct option from a list of possible choices. A couple of sample items are provided below.

SAMPLE ITEM #1

Coded Word: *SPWMTOSS*

Response Choices:
GIRAFFE
EMPLOYEE
LAWSUITS
CUSTOMER

"EMPLOYEE" is the correct answer because it is the only response that corresponds to the original item "SPWMTOSS". For example, "S" in the original word stands for "E" in "EMPLOYEE." The letter "S" in the original cannot correspond to any other response choice because the word must start with a letter and then end with the same letter twice, like we see in the word "employee."

SAMPLE ITEM #2

Coded Word: *QIRYGIDB DIRY*

Response Choices:
SOLUTION HOME
KICKBALL TOMB
HOMELAND CRAB
HOMEWORK ROME

"HOMEWORK ROME" is the correct answer because it is the only response that corresponds to the original item "QIRYGIBD DIRY." For example, "I" in the coded word corresponds to "O", "R"="M," "Y"="E," and so forth. No other solution fits the coded word.

APPENDIX F
CRYPTOGRAM SURVEY

Item Type	Stimulus	[a]Possible Response Choices			
Performance Criterion - 10 items All items are *solvable.* No items will have the "all of the above" response option.	UST WACWB SUSXC	Gas pumps again*	Hat large profit	Not space ready	Dad works strong
	QLBV RSBA ITSMG WEM AWX NSZW JPSAG YTHW NTWM	*Nice dock quote sat key jobs broke guns just	Ruts bats harsh mat set jabs bloke runs guts	Care fire quits sit fit tabs taffy fast gist	Even fear hairy the wet does croke goat must
	POQB QISA ID AQHO POIR AQYE DIWE	*Very raft as true veal trod said	Ache hill is liar acts lime side	Ball life is even bare ever site	Tire rock of kite tied Kiev fore
	IGLTR RGW IHBB RHWM LEPM	*Works sod wall sade rife	Fight tie fill time gate	Miles sin mall sane eyes	Laugh ham loll home cave
	MFGH HGLF QXGAM PYYV VYC DXGVP GHF	*Bear rate chain soot toy chats are	Save evil crept food dot crest vet	Snob boat prods meek key prost ode	Deal lags craft roof fog crate ale
	LYREF HKJM OU FKQZ EYNA	*Worst pawn if tame soul	Fails goth us some lace	Tacky mule is yule kale	Women tick us Nile eras
	TRW LPPE ERW QVE CRE KMA MAW TUE EVJP	*Lab feet tab sit bat run nab lot time	Lap hood dap kit pad rim map led dime	Tap seem map rot Pam fun nap tom fine	Tab room map kit Pam run nab ten lime
	EIHHM JPWS VRSS CWBSPN NPWN EISN	*Sorry mean full tailed dead sold	Folly team bill sailed read mold	Tally foul jell mailed mead told	Taffy soul mill failed lead told
	BGF FGB EIKL KHQ VCQ KIEL DAWW ELGP	*Tap pat robe bin sun bore will real	Pat tap rose wig lug sore fill teal	Net ten ramp log hug mart mill meal	Ten net romp lag fig more will teal
	IVCLS KACO JSPB FBS	*Nurse curl admit pie	Grape curb grain bye	Bingo cube debit eye	Roses cute media tie

APPENDIX F
CRYPTOGRAM SURVEY (continued)

Item Type	Stimulus	Possible Response Choices			
Cheating Criterion - 10 Items All items are solvable. All items will have the "all of the above" response option.	ZDCTF PCG IZSWEA HNDD	*Blank set inside wall	Clean bet flames fell	Blend eat guides rail	Aloha jet darken tell
	GYHV QBDG IHQ ZSBPY UHFY IBBM	*Real tour cat phone sale cool	Teal sour eat guilt blue pool	Must four fat melts cuts tool	Shut poor pat pinch feel cool
	YEAUI GHLFS FEG DIB JIIPF	*Radio trust sat hon moods	Quote daisy sud men hoods	Fares plight hap bam feeds	Money brand nod lie Leeds
	HQT BZAAN FZOENP	*Bee mills advise	Tea lolly afford	Sea gulls airway	Yen calls amazed
	UVEBTBNF	*Activity	Becoming	Campaign	Location
	QVLM AENO NEO QEO GLG OSC	*Bike fact cat bat mom try	Race fast sat rat dad tie	Moan ride die men Tut sit	Wait more roe woe mum low
	DUGH JECBQ QEC UDG VKAGCI	*Opts amend dam pot filter	Idea stamp pat die ideas	Open atlas sat Poe pupil	Ugly break Abe gat stole
	OUEAI EUOM KHVV TBBS TBOM RAUOM RUM JBSA SAM	*Sales last dill hoop host feast fat rope pet	Coves voce tall food post least mat home men	Waste saws fall mood most waste cat vote ten	Saved vast pill moon most beast bat hone net
	PYRCV PYSX XEO MLA VYYK VYO IWCOY	*Depot dear run fib teem ten phone	Homes hold dab lit soon sob drone	Mouth mock kop lab hoop hop crone	Towel tomb ban rug loop log frown
	ITME JSN NSE JHA BME GSN CFET	*Heat rug gut rip cat mug vote	Feat dug gut Dow hat rug rote	Quit ape pet alt mat rug vote	Drip the hut cow sat tug mote

* - Correct response

[a]Operational items are provided with the correct response first. For actual administration, order of response choices will be randomized from participant to participant.

APPENDIX G
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS FOR STUDY 2

Instructions: We are interested in your memory of your participation in this study. On this survey, you will be presented with items related to your memory of the study. Following each item, there will be four (4) choices. Please read all four of the choices, and then choose the correct response.

SAMPLE ITEM:

The first thing I read for this experiment was the:

A. PERSONALITY SURVEY
B. REASONING SURVEY
C. INFORMED CONSENT
D. CRYPTOGRAM SURVEY

Informed Consent ("C") is the best answer. This is because this was the first item you read for this experiment.

APPENDIX H
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS FOR STUDY 2 – STRONG CONDITION (continued)

Item Type	Stem	[a]Response Choices			
Operational Items (strong situation)	The method used to determine experimental rewards was:	Unfair+	Unsound*	Cordial	Humid
	The use of a performance reward made the experiment feel more:	Combative+	Competitive*	Passive	Dry
	The use of a performance reward made the experiment feel more:	Cutthroat+	High-Stakes*	Earthy	Musical
	The performance incentive:	Was a reason to win+	Was reason to try my best*	Was a reason to quit	Made me finish as quickly as possible
	The performance incentive made me more likely to:	Make sure I got what I wanted+	Work harder to succeed*	Eat pretzels	Take a nap
	Due to the performance incentive, I felt:	Normed	Coerced+	Lonely	Pressured*
	I found the prospect of missing out on an experimental reward to be a(n):	Punishment+	Disappointment*	Degree	Introduction

APPENDIX H
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS FOR STUDY 2 – STRONG CONDITION (continued)

Item Type	Stem	Response Choices			
Operational Items (strong condition)	When provided with a performance incentive, my only interest was in:	Triumphing+	Succeeding*	Budgeting	Following
	With the performance incentive, I wanted to:	Prevail+	Persevere*	Sleep	Draw
	After finding out about the performance reward, I knew I must:	Dominate+	Do my best*	Fall	Burn
Distractors	I was invited to participate in this study on a:	Monday	Tuesday	Thursday	None of the Above
	The experimental session was intended to take:	30 Minutes	60 Minutes	90 Minutes	120 Minutes
	The survey you did not take in the first session was:	A personality measure	A mathematical test	A demographics form	A reasoning test
	You began the experimental session at:	1pm	10am	11am	None of the above
	The number of personality questions was:	Less than 30	40-60	70-100	101 or greater
	The timeliness with which I completed this session was:	Stylistic	Typical	Coherent	Famous

APPENDIX H
DIFFERENTIAL FRAMING OF SITUATIONAL STRENGTH ITEMS FOR STUDY 2 – STRONG CONDITION (continued)

Item Type	Stem	Response Choices			
Distractors	In the experimental session, the background internet window colors were:	White	Beige	Maroon	None of the Above
	I found the personality survey to be:	Boring	Concerning	Musical	Enlightening
	I found the intelligence tests to be:	Sharp	Impossible	Easy	Challenging
	The cryptogram survey was:	Perfect	Undeveloped	Imperfect	Foolish

+ - Aggressive Alternative
* - Prosocial Alternative
[a]Operational items are provided with the aggressive response first, the prosocial response second, and the distractor choices third and forth, respectively. For actual administration, both items and order of response choices will be randomized from participant to participant.

APPENDIX I
OFF-TASK EFFORT ITEMS

We will now ask you some questions about your participation on the cryptogram survey.

Instructions: **IMPORTANT**! When answering the following questions, please do so thinking only about your performance on the cryptogram survey you recently completed. Please DO NOT answer with reference to your performance on the other surveys you have completed today.

For this survey, please read each item and indicate the degree to which it is descriptive of your performance on the cryptogram survey. That is, choose a number that best represents your opinion of your performance (Strongly Agree to Strongly Disagree). Please answer honestly so that we can better refine our software scoring algorithm; there are not right or wrong answers.

Item Stem
1. I thought about things that happened in the recent past (last few days).
2. I used breaks to relax.
3. I thought about how much time I had spent on this particular survey.
4. I took "mental breaks" during the task.
5. I daydreamed while doing the task.
6. I lost interest in the task for short periods.
7. I thought about other things that I have to do.
8. I wondered about how my performance compared with others.
9. I thought about the difficulty of the task.

Kanfer, Ackerman, Murtha, Dugdale, & Nelson (1994)

APPENDIX J
INTENSITY OF EFFORT ITEMS

We will now ask you some questions about your participation on the cryptogram survey.

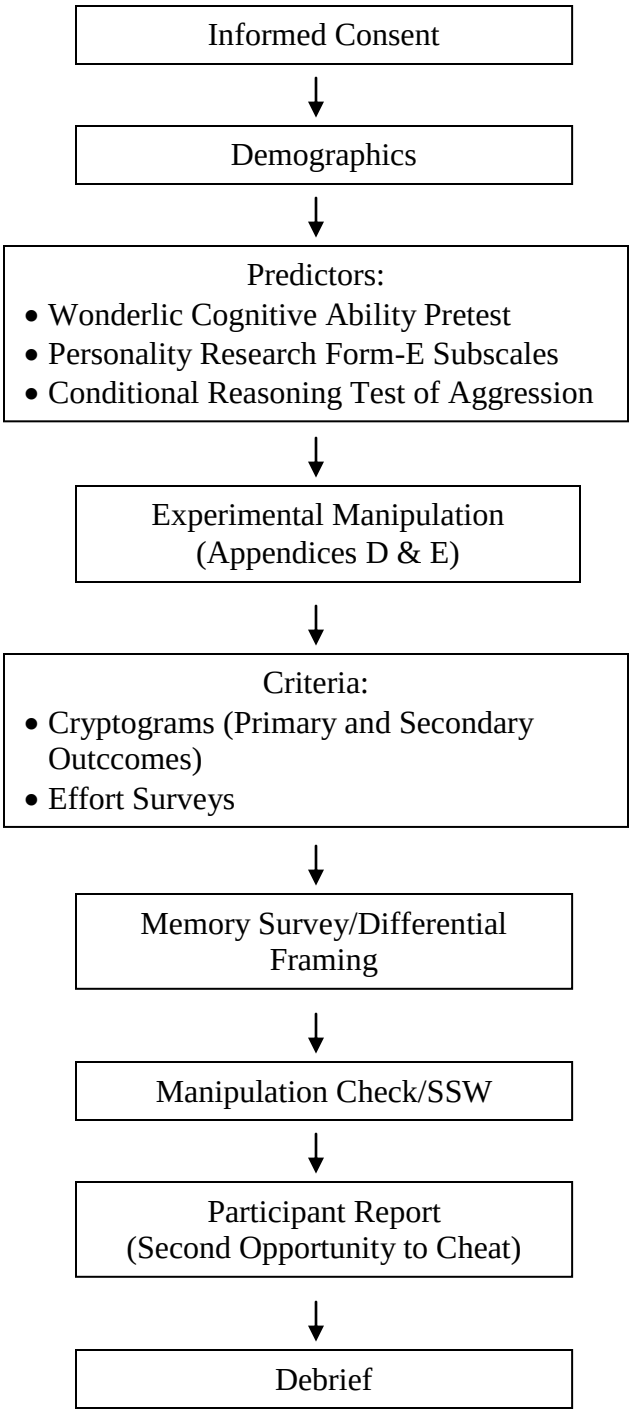
Instructions: **IMPORTANT**! When answering the following questions, please do so thinking only about your performance on the cryptogram survey you recently completed. Please DO NOT answer with reference to your performance on the other surveys you have completed today.

For this survey, please read each item and indicate the degree to which it is descriptive of your performance on the cryptogram survey. That is, choose a number that best represents your opinion of your performance (Strongly Agree to Strongly Disagree). Please answer honestly so that we can better refine our software scoring algorithm; there are not right or wrong answers.

Item Stem
1. I devoted all my energy to getting the Cryptogram/decoding survey done.
2. When I worked on this Cryptogram/decoding survey, I did so with intensity.
3. I worked at my full capacity on all of the Cryptogram/decoding survey.
4. I strived as hard as I could to be successful on the Cryptogram/decoding survey.
5. When I worked on the Cryptogram/decoding survey, I really exerted myself to the fullest.

Brown & Leigh (1996)

APPENDIX K
STUDY 2 TIMELINE



APPENDIX L
MANIPULATION CHECK

Facet	Item Stem
Clarity	For Cryptogram survey, specific information about task-related responsibilities was provided.
	For Cryptogram survey, easy-to-understand information was provided about requirements.
Consistency	For Cryptogram survey, different sources of task information were always consistent with each other.
	For Cryptogram survey, all requirements were highly compatible with each other.
Constraints	For Cryptogram survey, I was prevented from making my own decisions.
	For Cryptogram survey, constraints prevented me from doing things my way.
Consequences	For Cryptogram survey, my decisions had extremely important consequences for other people.
	For Cryptogram survey, very serious consequences occurred when I made an error.
Consequences: Experiment-Specific	For the Cryptogram survey, I had the chance of being rewarded for high performance.
	For the Cryptogram survey, I could obtain a performance reward if I performed better than other experimental participants.
	For the Cryptogram survey, the best performers are rewarded.
	For the Cryptogram survey, high performance was rewarded.

APPENDIX M
CORRELATION TABLE - GROUP 1

Correlational Data for Study 1 Measures - Group 1

Survey	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. CRT-A	-										
2. PRF-E (Aggression)	-.063	-									
3. Clarity	.254**	-.060	-								
4. Consistency	.246**	-.051	.114	-							
5. Constraints	.129	.134	.197**	.031	-						
6. Consequences (Neg.)	.116	.018	.302**	.257**	.002	-					
7. Consequences (Pos.)	.082	.047	.005	.186**	.039	.031	-				
8. SAT Math (SR)	.034	-.223**	.051	.208**	.113	.232*	-.092	-			
9. SAT Math Actual	.176	-.282**	.000	.300*	-.019	.262	-.147	.882**	-		
10. SAT Verbal (SR)	-.130	-.117	-.109	.009	-.135	.010	.164*	.049	.049	-	
11. SAT Verbal Actual	-.258*	.022	-.341**	.255	-.039	.058	-.063	.113	.117	.881**	-

Note. ** = $p < .05$; * = $p < .10$. CRT-A = Conditional Reasoning Test of Aggression; PRF-E Aggression = Personality Research Form-E Aggression Subscale; PRF-E Infrequency = Personality Research Form-E Infrequency Subscale; Clarity = DFSSS Clarity Subscale; Consistency = DFSSS Consistency Subscale; Constraints = DFSSS Constraints Subscale; Consequences - Negative = DFSSS Negative Consequences Subscale; Consequences - Positive = DFSSS Positive Consequences Subscale; SR = Self-Reported. . Except for ACT scores, descriptive statistics are based on sample sizes ranging from 100 to 141. ACT scores sample sizes range from 16 (obtained scores) to 60 (self-reported scores in Group 2).

APPENDIX M
CORRELATION TABLE - GROUP 1 CONTINUED

Correlational Data for Study 1 Measures - Group 1 continued

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
12. ACT Composite (SR)	.187	-.082	-.238*	.347**	-.032	-.051	.054	.646**	.653**	.159	.076
13. ACT Composite Actual	-.515	-.382	.000	.285	.841**	.841**	-.276	.560	.441	.767**	.788**
14. GPA (SR)	.072	-.130	.181*	.196**	-.056	.266**	.035	.410**	.025	.075	.056
15. GPA Actual	-.046	-.019	.027	.056	-.030	.019	-.346**	.460**	.403**	.139	.178

APPENDIX M
CORRELATION TABLE - GROUP 1 CONTINUED

Correlational Data for Study 1 Measures - Group 1 continued

Survey	12.	13.	14.	15.
12. ACT Composite (SR)	-			
13. ACT Composite Actual	.668*	-		
14. GPA (SR)	.373**	.659	-	
15. GPA Actual	.370*	.831**	.138	-

APPENDIX N
CORRELATION TABLE - GROUP 2

Correlational Data for Study 1 Measures - Group 2

Survey	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. CRT-A	-										
2. PRF-E (Aggression)	.169*	-									
3. Clarity	.179**	.050	-								
4. Consistency	.163*	-.099	.142*	-							
5. Constraints	.144*	.027	.023	.172**	-						
6. Consequences (Neg.)	.217**	.004	.081	.098	.098	-					
7. Consequences (Pos.)	.132	.086	.208**	.228**	.163*	-.005	-				
8. SAT Math (SR)	.127	.180*	.075	.015	.106	.114	.031	-			
9. SAT Math Actual	.051	.170	.061	-.091	.237	.091	.003	.866**	-		
10. SAT Verbal (SR)	-.047	.203**	.081	-.048	-.117	-.100	.171*	.274**	.370**	-	
11. SAT Verbal Actual	-.426**	.039	-.323**	-.078	-.147	-.145	.064	.335*	.447**	.757**	-

Note. ** = p < .05; * = p < .10. CRT-A = Conditional Reasoning Test of Aggression; PRF-E Aggression = Personality Research Form-E Aggression Subscale; PRF-E Infrequency = Personality Research Form-E Infrequency Subscale; Clarity = DFSSS Clarity Subscale; Consistency = DFSSS Consistency Subscale; Constraints = DFSSS Constraints Subscale; Consequences - Negative = DFSSS Negative Consequences Subscale; Consequences - Positive = DFSSS Positive Consequences Subscale; SR = Self-Reported. . Except for ACT scores, descriptive statistics are based on sample sizes ranging from 100 to 141. ACT scores sample sizes range from 16 (obtained scores) to 60 (self-reported scores in Group 2).

APPENDIX N
CORRELATION TABLE - GROUP 2 CONTINUED

Correlational Data for Study 1 Measures - Group 2

Survey	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
12. ACT Composite (SR)	.032	.078	.038	.177	-.003	.134	.089	.657**	.269	.600**	.538**
13. ACT Composite Actual	.037	-.707*	-.430	.208	.208	.028	.138	.630	.637	.913**	.740*
14. GPA (SR)	.050	-.009	-.080	.027	-.029	.107	.055	.288**	.004	.022	.064
15. GPA Actual	-.020	.108	-.101	-.277*	-.042	.119	-.033	.315*	.365**	.162	.161

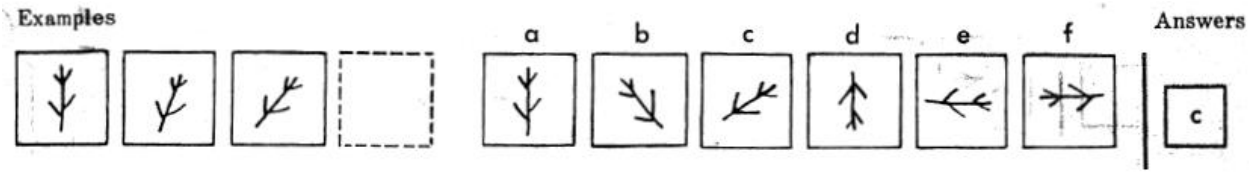
APPENDIX N
CORRELATION TABLE - GROUP 2 CONTINUED

Correlational Data for Study 1 Measures - Group 2 continued

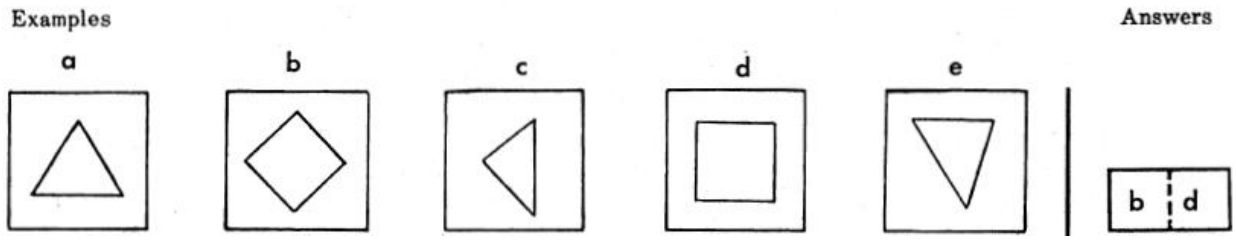
Survey	12.	13.	14.	15.
12. ACT Composite (SR)	-			
13. ACT Composite Actual	.981**	-		
14. GPA (SR)	.312**	.573*	-	
15. GPA Actual	.159	.383	.162	-

APPENDIX O
CATTELL'S CULTURE FAIR TEST – SAMPLE ITEMS

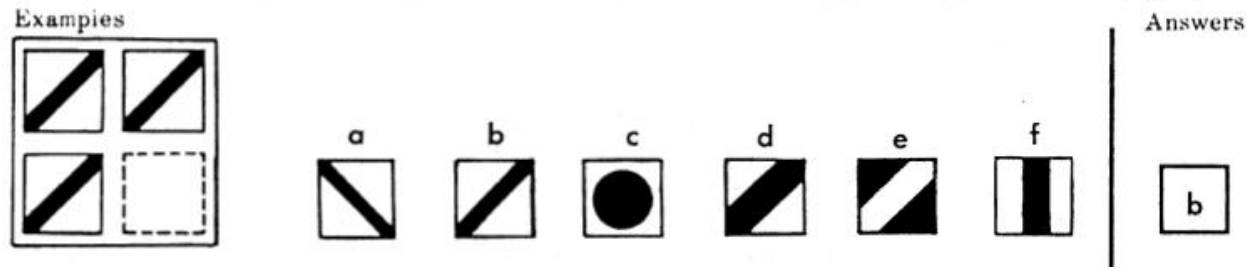
Test 1



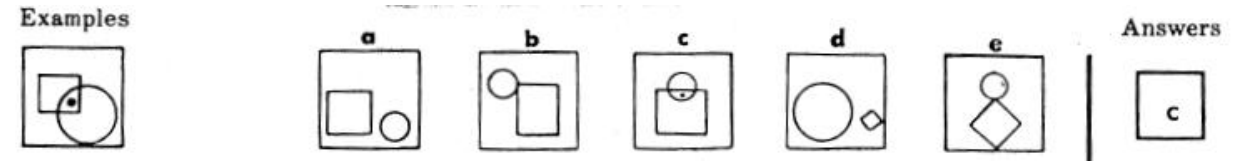
Test 2



Test 3



Test 4



APPENDIX P
WEAK (CONTROL) CONDITION CORRELATIONS

Correlational Data for Study 2 Measures - Control Group 1

Survey	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. CRT-A	(.722)										
2. PRF-E Achievement	.016	(.647)									
3. PRF-E Aggression	.108	-.171**	(.733)								
4. PRF-E Endurance	-.142*	.506**	.183**	(.670)							
5. PRF-E Impulsivity	-.024	-.194**	.369**	-.231**	(.681)						
6. PRF-E Order	.039	.215**	-.075	.215**	.238**	(.881)					
7. Cattell's Culture Fair Test	.056	.361	-.478	.065	-.355	-.002	(.833)				
8. Cryptogram Performance	.125*	-.030	-.013	.009	-.086	-.069	0.513**	(.692)			
9. Cryptogram Cheating	.151**	.012	.200**	.040	.141*	.000	.060	-.031	(.926)		
10. Off-Task Effort	.092	-.086	.229**	-.133	.159**	-.072	-.651**	-.108	0.03	(.673)	
11. Work Intensity	.054	.108	-.036	.050	-.196**	.213**	.214	-.195**	.340**	-.049	(.954)

Note. ** = p < .05; * = p < .10. Reliabilities reported along the diagonal in parentheses. CRT-A = Conditional Reasoning Test of Aggression; PRF-E = Personality Research Form-E.

APPENDIX Q
STRONG (EXPERIMENTAL) CONDITION CORRELATIONS

Correlational Data for Study 2 Measures - Experimental Group

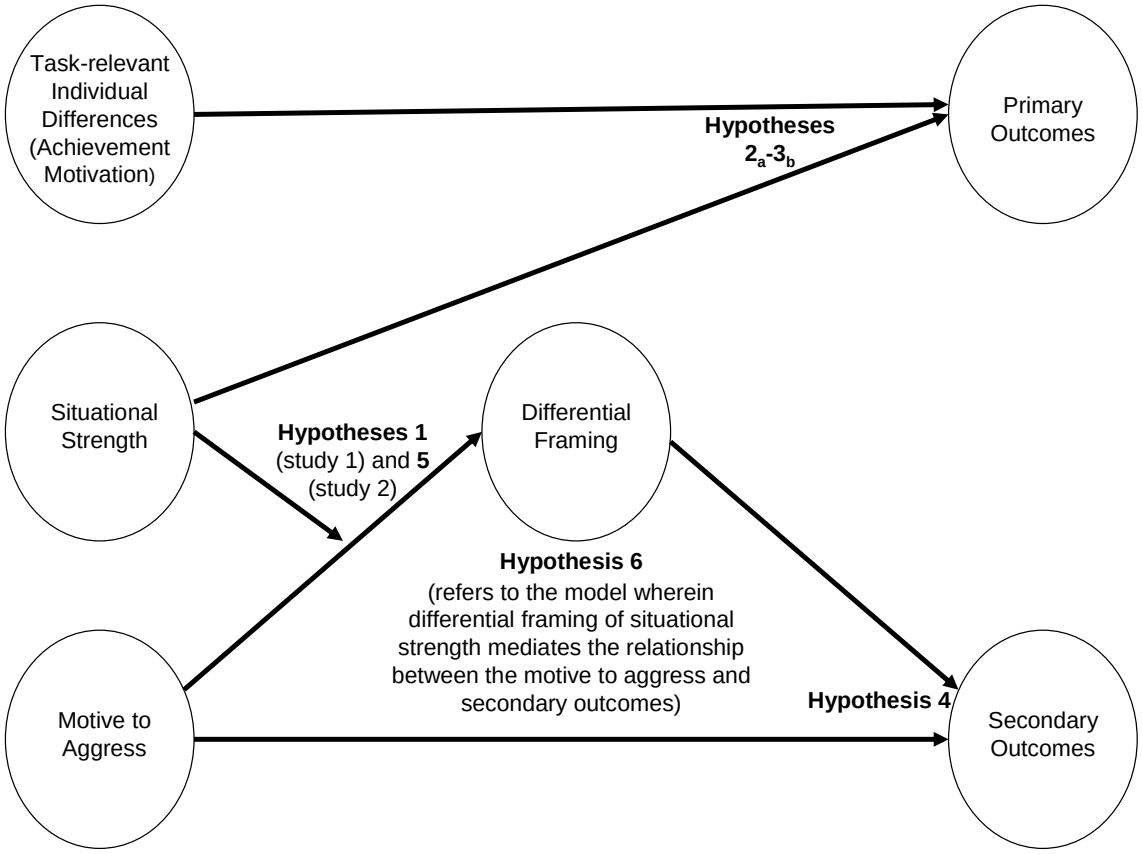
Survey	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	.12
1. CRT-A	(.666)											
2. PRF-E Achievement	-.122*	(.618)										
3. PRF-E Aggression	.166**	-.209**	(.744)									
4. PRF-E Endurance	-.230**	.566**	-.219**	(.659)								
5. PRF-E Impulsivity	.104	-.143*	.407**	-.192**	(.685)							
6. PRF-E Order	.178**	.121*	-.093	.032	-.282**	(.894)						
7. Cattell's Culture Fair Test	.316**	-.089	.167	-.077	.102	-.067	(.857)					
8. Cryptogram Performance	.036	.045	-.027	-0.016	-.132*	-.164**	.527**	(.662)				
9. Cryptogram Cheating	-.083	.085	-.076	.067	-.070	.115	-.225	-.183**	(.880)			
10. Off-Task Effort	-.004	-.169**	.180**	-.225**	.222**	-.078	-.235	-.217**	.064	(.694)		
11. Work Intensity	-.020	.150**	-.071	.136*	-.106	-.032	.058	.399**	.091	-.169**	(.947)	
12. Differential Framing	-.093	-.033	.219**	.098	.215**	-.103	-.056	-.028	.045	.054	-.073	(.354)

Note. ** = p < .05; * = p < .10. Reliabilities reported along the diagonal in parentheses. CRT-A = Conditional Reasoning Test of Aggression; PRF-E = Personality Research Form-E.

FIGURE CAPTIONS

Figure 2. Comprehensive model for the differential framing of situational strength with primary and secondary outcomes.

Figure 2


Task-relevant Individual Differences (Achievement Motivation)
Primary Outcomes
Hypotheses 2a-3b
Situational Strength
Hypotheses 1 (study 1) and 5 (study 2)
Differential Framing
Hypothesis 6
(refers to the model wherein differential framing of situational strength mediates the relationship between the motive to aggress and secondary outcomes)
Motive to Aggress
Hypothesis 4
Secondary Outcomes

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